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EXOPHTHALMIC GOITRE WITH INSANITY.

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This disease was first described by Graves in his treatise on "Clinical Medicine," and from this fact bears his name. It has also been called Basedow's disease, but his description was subsequent to that of Graves.

Trousseau, in his recent work on "Clinical Medicine," presents very fully the symptoms and pathology of exophthalmic goitre.

The disease is marked by three characteristic symptoms: prominence of the eye-balls; enlargement of the thyroid gland; palpitation of the heart. The presence of these symptoms he would deem conclusive in forming a diagnosis. There is generally no disturbance of vision. Occasionally, adaptation is difficult, and there weakness of sight; but diplopia is never present.

Hypertrophy of the thyroid gland takes place gradually; both lobes may be enlarged to an equal degree, but in a majority of cases the right is the one chiefly affected.

The patient complains of dizziness and palpitation of the heart, long before the exophthalmos or the goitre have been detected. The force of the heart's action at

times produces a prominence of the chest walls which can be readily detected.

There are secondary symptoms which should be noted. In some cases the appetite is diminished—in others voracious—and always capricious. These several conditions may be found during the progress of the same case. Digestion may be good, but assimilation at the same time so defective that there is a progressive emaciation. Diarrhoea may supervene, and increase the tendency. The patient is restless and sleepless, and is often tormented with thirst. The presence of the enlarged gland renders respiration and deglutition difficult. The heart's action is increased in frequency, the pulse varying from 120 to 150. This is attended by a rise in the temperature of the body of from one to four degrees. The sensation of heat is almost unbearable, and is such as accompanies certain lesions of the sympathetic nervous system, as in diabetes mellitus.

Vomiting and cough are unpleasant and, at times, dangerous complications of the disease. Other symptoms characteristic of debility, as oedema of the extremities, night sweats and nervous pains, are present.

The patient's temper is greatly altered. He may become quick tempered, irritable, and at times violent. Hallucinations and sometimes insanity may occur in the course of the disease. A change in the voice takes place, which is due to disturbance of respiration from pressure upon the recurrent laryngeal nerve. Blowing murmurs are heard over the gland and vessels of the neck, and a true aneurismal thrill is imparted to the hand at each diastole of the carotids. The beating of the abdominal aorta is readily distinguished, and produces a sensation of oppression, and often of pain, which is referred to the region of the solar plexus. In all cases where the exophthalmos is not marked, there is a strange look about

the eyes, and they are unusually lustrous and large. The disease runs a chronic and an acute course. In both forms it is characterized by many of the symptoms above enumerated. The condition of the patient is truly a pitiable one, and to a person unaccustomed to the disease a hopeless one.

Patients rally from several of these attacks, and may die of intercurrent disease. Death in the first paroxysm is not frequent.

Examination shows that the thyroid arteries increase in diameter, and become flexuous; their extremities and branches are enlarged, and their anastomoses seem to multiply. The venous system of the gland is also much developed. This exaggerated development of the arteries accounts for the blowing murmur heard over the swelling, and for the expansion felt when the hand is applied over the gland.

In some autopsies organic diseases of the heart are discovered. In a majority of cases, the cardiac alterations are variable and temporary—analogous to those which are met with during pregnancy. Permanent cardiac lesions are more frequent where the neurosis has been of prolonged duration. Attempts have been made to ascertain the anatomical cause of exophthalmos. A largely increased amount of cellular tissue and an enormous hypertrophy of adipose material within the orbit have been found.

When the prominence of the eye shows itself, as it often does, in paroxysms, we ascribe this condition to a violent and active congestion. Frequent repetitions of these congestions may increase the nutrition of the cellular and adipose material, till from its greatly increased hypertrophy it may push forward the eyeball and give rise to a permanent exophthalmos. Exophthalmic goitre has been called a cachectic affection: "but

this cachexia," says Trousseau, "is only the last term of a morbid series which begins with multiple congestions, which are themselves due to a peculiar modification of the sympathetic nerve. To sum up, the disease is in my opinion a neurosis of the sympathetic, if not a complaint attended with material lesions of the ganglionic nervous system." This opinion he supports by post mortem appearances, and by the causation of other local congestions.

The only other disease with which this is likely to be confounded is aneurism of the aorta, or of one of the arteria innominata. This mistake has been made, and may readily occur upon a superficial examination. The differential diagnosis is briefly stated. In aneurisms the swelling will occupy but one side of the thyroid gland; in this disease it may exist on both sides. By far the most marked difference is found in the peculiar combination of the three characteristic symptoms which co-exist in no other, and make this a disease "*sui generis*."

Graves' disease is common among women, but relatively rare in men. Of fifty cases collected by one author, but eight occurred in men.

CASE.—A man, 26 years of age, born in Canada, where his father is still living. His mother died nine years since of consumption. Patient enjoyed uninterrupted health till about two and one-half years ago, when he suffered from a severe attack of typhoid fever. This continued for nine weeks. He seemed to recover fully from the effects of the disease, and about two years ago was employed as an attendant in this asylum. He then weighed 187 pounds, and was in an apparently vigorous state of health. Three months thereafter he began to complain of a constant and troublesome headache, and lost appetite and flesh. In August, 1868, he was attacked with vomiting and spasms of the stomach, and

was sick for two days. Afterward the headache disappeared for a short time. In September, this was again the subject of complaint, and was described by the patient as attended by a peculiar frying sensation in the top of the head.

This continued till January, 1869, when patient had an attack similar to the one in August. He took a furlough of a week, and then reported for duty much improved.

The next symptom which attracted attention was excessive palpitation of the heart under excitement or unusual exertion. Patient complained of these symptoms, headache and palpitation, continuously, till July. He was then prostrated by an attack resembling malarial poisoning; was treated with quinia, followed by tonics. He soon resumed labor, though in no condition to do so. He had lost much in flesh and strength, and was greatly changed in appearance. In August, 1869, he had a severe attack of illness, marked by profuse perspiration, nervous anxiety, and depression. Respiration were 35 to the minute and difficult; pulse 120. The sphygmographic pulse traces taken at this time, from both the right and left arms varies from the normal



Trace from right arm.



Trace from left arm.

pulse, in that each curve is surmounted by a horizontal or flat top, and assumes the form described by Marey as the senile pulse. Eyes were prominent, there was a choking sensation in the throat, and patient could only lie on the left side.

Everything ingested was vomited. A more critical examination revealed an extensive swelling of the thyroid gland, occupying the space between the sterno-cleido-mastoid muscles, and extending from the clavicles to the prominence of the larynx.

This had not been noticed by the patient or his wife; upon applying the hands over it, the peculiar thrill of an aneurism was detected; the bruit was also conveyed to the ear.

Aneurism was at first suspected, but was excluded from the diagnosis, as both sides of the neck were equally prominent, the circulation in both carotids equally disturbed, and finally the swelling was located in the thyroid gland.

Exophthalmic goitre was diagnosticated. At this time the size of the neck over the swelling was $16\frac{1}{2}$ inches, the patient usually wearing a $14\frac{1}{2}$ inch collar. Ophthalmoscopic examination revealed a highly colored fundus, arteries enlarged, and the pulsations markedly visible. The veins seemed to be about double the normal size. The border of the optic nerve was well defined and the nerve substance paler than usual.

As he had no appreciation of his condition, and would not believe his disease was other than ordinary goitre, he was not placed under treatment. He took a leave of absence, and went to Canada, where he consulted an "Indian doctor," who agreed with the patient in the diagnosis of the case, furnished him an ointment composed, apparently, to a great extent, of iodine, and promised him a speedy cure. After some ten days he returned, confident that out of door exercise and the use of the wonderful "Indian ointment," would result in recovery. For a few days he picked hops, and was comfortable in health; he then had attacks of profuse perspiration, which reduced him rapidly; his eyes became more prominent,

and on the 20th of September the size of the neck was increased to $17\frac{1}{2}$ inches. The patient became fearful, gave up the use of the ointment, and applied for treatment.

One of Chapman's ice bags was applied over the tumor, and ordered worn constantly. Fluid extract digitalis, to control the action of the heart; was given in two drop doses, increased afterward. Pulse 120. September 22d, pulse 108; 23rd, 104; 25th, patient has been vomiting, is reduced in strength; pulse again 120. September 29th, pulse 114; temperature $101\frac{1}{2}$ degrees. The sphygmographic traces of the two arms differ remarkably from each other, the right presents a dicrotic trace, with



Trace from right arm.

a normal acute apex, while the left retains the characteristics noticed in the traces taken the month before.



Trace from left arm.

September 30, vomiting continues; nothing is retained on the stomach: digitalis discontinued. Patient is in bed, restless, complains of heat, sleeps little. October 8, has retained nothing for eight days; is much emaciated; temperature $102\frac{1}{2}$; is very irritable, impatient, fault-finding. Given injections of beef extract. Pulse is very rapid and irregular, at times reaching 150. Murmurs, indicative of mitral insufficiency are heard over the heart, and the pulse beats of the abdominal aorta are painfully strong and distinct. The eyes are very prominent and staring, and the aspect of the patient is anxious and fearful. October 12, temperature

99; very restless and sleepless, and at times delirious; enemata discontinued, as they promote diarrhoea; retains a little buttermilk. October 15, temperature 100, pulse 104; takes an egg and drinks a little ale; still delirious. October 20, is thin and emaciated; vomits. October 22, sensation of thirst and heat very strong; patient more delirious, got up in the night, and was about to throw himself over the banister, saying there was a stream of water flowing below. Tongue red and glazed, throat and fauces dry; requires constant watching. October 27, walks out a little daily; very weak and feeble; deglutition difficult; voice changed; size of neck $16\frac{3}{4}$ inches. November 8, since the first of the month has steadily improved; eaten well, gained in flesh and strength. November 9, severe paroxysm of cough and dyspnoea, with bloody sputa; very dizzy; emotional; cries and worries without cause; temperature $102\frac{1}{2}$; size of neck, $16\frac{1}{2}$ inches; pulse 120; carotids beat forcibly; respiration prevents auscultation or percussion being of avail. November 12, severity of paroxysm allayed by sedatives; no further indication of inflammatory action. November 18, size of neck reduced to $15\frac{3}{4}$ inches. Has profuse night sweats, some cough, and is restless. Heat of skin normal; pulse 96; given quinia and phosphoric acid to control action of skin. November 22, gaining in flesh and strength, and free from night sweats. December 15, performed some light labor in the ward. Improved in general appearance; eyes less prominent; size of neck $15\frac{1}{2}$ inches; pulse about 100; is eating and sleeping well. He continues thus, though face was tumid and congested, till about the middle of January, when his extremities began to swell and become painful on standing or walking. The swelling steadily increased till February, when he left the institution. He was then irritable

fault-finding and unreasonable, and his mind much enfeebled. For a few days his stomach rejected food; he was restless, sleepless, and losing flesh rapidly. Palpitation was again a troublesome symptom.

After going to the home of his friends, all the physical and psychical symptoms mentioned as existing in October were aggravated. The patient became very troublesome from his irritability and helplessness. His insanity was fully marked, and continued during the few weeks of his illness. He died late in April.

The treatment adopted in this case was that recommended by Trousseau—the free use of digitalis and the local application of the ice-bag. The results are briefly stated: the digitalis quiets palpitation and diminishes the frequency of the cardiac and arterial pulsations; the application of the ice offers the twofold advantage of causing a violent revulsion to the skin, and of rendering innervation and nutrition more perfect.

Trousseau says iodine was used both internally and externally in this form of goitre before it was recognized as a distinct variety. Its use was abandoned by nearly every one, as the symptoms were aggravated. He expresses himself strongly in this regard: "When in a case of goitre you find palpitation, protrusion of the eyeballs, and a strange look of the eyes, never give iodine. You have to deal with exophthalmic goitre, and iodine will only increase all the symptoms of the disease."*

In many cases the anemia present would seem to indicate the use of iron, but when the pulse exceeds 100,

*Dr. W. B. Cheadle has recently reported to the Harveian Society eight cases of this disease, in six of which iodine was given continuously for many weeks, and in only one case was it deemed necessary to discontinue it on account of increased palpitation following its administration.—*Jour. Med. Science*, October, 1869.

experience teaches that the disturbance of the circulation will only be intensified by the action of the remedy.

Bleeding is recommended only when the pressure of the gland from congestion threatens asphyxia.

In the Clinical Society's transactions, (London, 1868,) we find three cases of exophthalmic goitre reported by Dr. Morell Mackenzie. They were all women, and all presented the symptoms given above as characteristic of the disease to a marked degree. There was exophthalmous swelling of the thyroid, and palpitation of the heart. The carotids beat forcibly, and the pulse was frequent, varying from 120 to 170. One of the cases we transcribe at length, on account of the cerebral disturbance manifest during the progress of the disease.

"The case came under treatment November 7, 1867. Swelling of the neck was first noticed four years and a half previously. It had increased slowly for four years, but during the last six months had made rapid progress. The girl had never seemed very strong, but had formerly been remarkably intelligent. Latterly, however, she had become drowsy, capricious, irritable, and wilful.

The following is her present condition, November 12: She has a very large, hard, slightly nodulated hypertrophy of both lobes of the thyroid gland, and her neck measures sixteen and a half inches round the largest part of the tumor. It is larger on the right side, and presses the right carotid (which is thickened, tortuous, and feels like a hard cord) to the posterior part of the neck. The beat of the left carotid is slightly accentuated. The impulse of the heart is considerably increased, but the sounds are natural. The pulse is 90, and weak; her appetite is poor, and the mucous membrane of the mouth decidedly anaemic. The goitre was treated by counter-irritation, and small doses of

iron were administered. The patient seemed to remain in about the same condition for some time, but on December 6, her mother called to say that she had had a fit two days previously. Dr. Graham, who had been called in, had very judiciously ordered ice to be applied to the bronchocele; but this treatment had not given much relief. She was received into the hospital the same day.

On admission she was found to be in a state of hebetude. When sleeping, however, she tossed about a great deal, and had to be constantly watched to prevent her falling out of bed. Her pulse was 120, and not particularly weak. The right carotid throbbed violently, and the impulse of the heart was excessive. Six leeches were applied to the thyroid gland, and fifteen minims of tinct. digitalis were ordered every four hours. She was put upon six ounces of wine daily, and ordered beef tea, strong broth, milk, &c.

December 12, she had a maniacal fit which lasted three hours. Whilst in the paroxysm she refused food, screamed, tried to bite those round her, repeated a verse of a hymn forty or fifty times over, implored the nurses to make her take her medicine, and, after drinking it, begged for some more. She also said she knew she was dying, and called for her relatives, constantly repeating the same cries for five or ten minutes together. These appeals alternated with prayers and blasphemies. The period of excitement was followed by a semi-comatose condition. Occasionally she asked for tea, but refused everything else.

She had several maniacal attacks during the next few days. They generally lasted from three to four hours. In her paroxysms she would often drink large quantities of beef tea, milk, &c., but in her lethargic condition she would take nothing. In the semi-comatose state

she tossed about a great deal, and became rather violent when an attempt was made to rouse her.

December 17. During the previous night she had been very restless, and, at times, extremely violent. Cold sweats came on in the afternoon, and the urine was passed involuntarily. The pulse was 150, very feeble, and the carotids no longer throbbed. She died at six in the evening, after a mild epileptic fit.

The autopsy was made twenty-one hours after death.

The substance of the cerebral tissues was not unnaturally soft; nor was there any clot or embolism anywhere, but the corpora quadrigemina and the medulla oblongata—particularly its posterior part—were very soft, and on minute examination displayed the usual appearance of common softening. The fits and death were probably produced by the sanguineous fluid which was found (to the extent of a drachm or two) in each lateral ventricle, and to the softening of the medulla oblongata.

The membranes of the brain were also found to be turgid with blood.

The pulmonary artery and aorta were bound together. The quantity of fat on surface of the heart was in excess for so young a subject. The mitral and aortic valves were normal, excepting a little atheroma at their bases. There was also atheroma about the sinuses of Valsalva. The walls of the aorta and pulmonary artery were very thin. The thyroid gland was much enlarged, and its right lobe passed round behind the oesophagus and came in contact with the spinal column. Its structure showed hypertrophy of the cellular elements.

The inferior thyroid arteries were much enlarged; the superior, normal.

The carotids were elongated and their walls abnor-

mally thin; the canal of the right one was considerably enlarged."

The treatment pursued in the other cases was substantially the same as in the one we have presented, except the abstraction of blood. In one of them improvement was rapid and satisfactory: in the other there was a gradual decline, which at the time of writing made the prognosis unfavorable.

Tinct. digitalis was given in all these cases to the extent of fifteen drops every four hours, and cintinued till vomiting supervened. Ice was also applied. This treatment seems to be the one best adapted to meet the indications presented, and promises the best chances for recovery or material improvement.

HÆMATOMA AURIS.

BY E. R. HUN, M. D.

Haematoma Auris, or sanguineous tumor of the external ear, has been for a long time observed as a frequent concomitant of insanity; and various authors have discussed the questions relative to the true nature of this phenomenon, both as regards its pathology and its relation to those conditions of the nervous system which accompany mental derangement. M. Ferrus, in France, and Bird, in Germany, called attention to it in 1838, since which time it has been studied by MM. Belhomme, Lunier, Renaudin, and others, and in 1848, Dr. Franz Fisher, physician to the Illenau Asylum, published quite a lengthy article upon the subject.

Since my connection with the New York State Lunatic Asylum, I have had frequent opportunities to see cases of hæmatoma, and I propose in this paper to

present the subject under consideration from a clinical point of view, and deduce my conclusions from original observations, and from the history of such cases as I have been able to find recorded in the books of the Asylum. In a few cases which I have seen and examined during life, opportunities have been presented for post mortem examination, and upon these examinations I base my opinion as regards the pathology of the disease.

Before giving an account of individual cases, it may not be out of place to describe briefly the general appearance and progress of haematoma.

Preceding the appearance of the tumor we find that one, or in rare cases both, of the ears become red and swollen, while at the same time the face and eyes give evidence of a strong determination of blood toward the head; occasionally, however, the redness is absent, and the skin maintains its normal color, while the tumefaction appears due to a slightly oedematous condition of the auricle. This condition of the part is preceded by no manifestation of constitutional disturbance, as chills, &c., and the patient appears in his usual health.

In the course of a period of time varying from a few hours to several days, an effusion of blood takes place, and the malady attains its full development. The tumor occupies the auricle of the ear, and projects from its concave surface. In size it varies from a bean to a hen's egg, and in the latter case obliterates all the ridges and depressions observed in the normal ear, and presents a smooth rounded surface. It is usually hard and unyielding, but upon careful examination is found to present a feeling of fluctuation, and in some cases, especially those of long standing, affords a sense of distant crepitation to the finger of the examiner, which is supposed to be due to the breaking up of clots. In certain cases it is fluctuating in the centre, and is in-

durated about its circumference. The skin is distended and smooth, while its color assumes a purple hue. The lower part or lobe of the ear alone remains unchanged.

The tumor may remain for a longer or shorter time in *statu quo*, after which it may either undergo spontaneous rupture, or may be gradually absorbed. If rupture takes place, or if the tumor be punctured, there is a large escape of clotted blood mingled with sanguinolent serum, and by the introduction of a probe we may satisfy ourselves of the existence of a very considerable cavity. If let alone, the opening, whether spontaneous or induced by artificial means, has a strong tendency to close, and the cavity refills in the course of a few hours, and the tumor resumes its former magnitude. If, however, the orifice be kept open, a sero-purulent discharge ensues, which continues often for a long time, and may terminate in an exudation of plastic lymph, uniting the walls of the cavity, and causing its obliteration; leaving an indurated mass which subsequently contracts and produces a strange and characteristic deformity.

A certain amount of deformity remains in those cases where absorption takes place without rupture, but it is not nearly so marked as in the former case.

The following cases of hæmatoma are copied from the records of the Asylum, and many of them have fallen under my personal observation at different stages of their progress.

No. 1. A. H., aged 47 years. General paresis. Admitted May, 1853. The first evidences of hæmatoma auris were discovered October 15. Both ears became red and enlarged rapidly until all the ridges and depressions had disappeared. During the early part of November, both ears ruptured spontaneously, and discharged very freely. After this rupture he had frequent convul-

sions, and failed rapidly, dying November 13, in violent convulsions. An autopsy was made, and the usual appearances of paresis were found in the brain, but no mention is made of the condition of the ears.

No. 2. H. S. D., aged — years. Chronic mania. Third attack. Admitted November, 1854. Had haematoma of both ears, which ruptured spontaneously, and subsequently contracted. He was discharged unimproved, and is still living insane in the county alms-house.

No. 3. G. D., aged 50 years. Dementia. Admitted January, 1857. Had haematoma of left ear, with rupture and subsequent contraction. Died November, 1858.

No. 4. J. A. C., aged 34 years. General paresis. Admitted January, 1857. Insanity hereditary in his family. Was discharged during a remission of his disease in June, 1858. Re-admitted May, 1859. On July 24, the first evidence of a simple sanguineous cyst in each ear was noticed. Effusion rapidly took place, until the ridges and depression of the ears were entirely obliterated. July 31, tumors fluctuate. Little or no pain, and no modification of mental condition since this complication commenced. Tumefaction of ears not abated, but rather increased. September 30, the tumors of ears have gradually subsided, and left the ears slightly thickened. May 10, 1860, patient died suddenly. No autopsy.

No. 5. A. H., aged 29 years. Acute mania. Admitted September, 1859. Haematoma of the left ear was observed November 1, which was gradually absorbed, and disappeared November 22. In January, 1860, he had haematoma in both ears, and with it an attack of erysipelas of the head and face, which latter affection subsided, leaving the haematoma still existing, which by February 2, had developed to a remarkable

degree. February 6, the left ear ruptured and suppurated. February 17, the opening closed, and the ear is swelling again. February 10, he made a violent attack upon another patient, who in defending himself, seized the swollen right ear and ruptured it, causing the escape of a large quantity of coagulated blood. The patient was taken away in October, 1861, in a condition of hopeless dementia.

No. 6. J. H. S., aged 47 years. General paresis. Admitted June, 1860. Had hæmatoma in right ear, July 12. Died October 23, 1860.

No. 7. C. M., aged 40 years. Melancholia. Admitted June, 1864. Hæmatoma commenced in right ear September 29, and increased to an enormous size. It finally ruptured with profuse discharge, after which it became shrunken and contracted. The patient was discharged unimproved December 17, 1869, and sent to the Willard Asylum.

No. 8. I. G., aged 55 years. Dementia. Admitted April, 1867. Hæmatoma of both ears commenced to develope June 29, 1867. Ears increased in size, and ruptured with subsequent contraction. Discharged unimproved March 14, 1868, and sent to county alms-house.

No. 9. D. M., aged — years. Melancholia. Second attack. Admitted January, 1868. Hæmatoma of left ear commenced May 18, 1869. On July 3, had hæmatoma of both ears. August 1, the left ear burst at upper part of concha, while he was sitting in a chair, and the contents, consisting of fluid and clotted blood, were thrown to the ceiling, a distance of twelve feet, so as to stain the plaster. The right ear still continued to increase in size, and ruptured spontaneously during the latter part of August. Both ears afterwards contracted. Died September 9, 1869. An autopsy was made, and

the ears examined. Upon cutting into them, the perichondrium was found much thickened, and separated from the auricular cartilage on its outer aspect, so as to leave a large smooth cavitylined with a smooth shining membrane, and containing a few drops of serous fluid.

No. 10. J. I. L., aged 53 years. Chronic mania. Admitted May, 1868. Had haemato ma of left ear October 22, 1868, which increased in size until all the ridges and depressions were obliterated, and a rounded tumor as large as half a hen's egg bulged from the ear. It ruptured and became permanently thickened and contracted. Died December, 1868.

No. 11. J. P., aged 37 years. Acute Mania. Admitted May, 1868. Had haemato ma of left ear in June, which became very large and ruptured, subsequently contracting. During October, 1869, was removed by his wife, contrary to the advice of the physician; the patient being still in a condition of dementia.

No. 12. J. H. K., aged 41 years. Melancholia. Admitted May, 1868. In January, 1870, while on the convalescent ward, developed haemato ma in the right ear, which did not grow to any great size, and which still continues.

No. 13. A. P. McI., aged 37 years. Melancholia. Admitted July, 1868. Had strong hereditary tendencies to insanity, her father, paternal uncle, and sister being insane. On September 10, she had a swelling in the right ear, resembling haemato ma. September 14, a swelling appeared in left ear, similar to the one in the right. September 23, the swellings subsided. She left the Asylum July 31, 1869, with still some thickening of both ears. [NOTE.—From the time of her admission up to March, 1869, she was constantly violent, noisy, and under great mental excitement, after which she be-

came quiet; but even when she left the Asylum she had not regained her former vigor of mind, and will probably return.]

No. 14. S. B. W., aged 37 years. General paresis. Admitted August, 1868. Had hæmatoma of the left ear August 27, which increased in size until September 17, when it was enormous. It then ruptured, and discharged profusely from the concha. During the night a scab formed on the point of rupture, when it at once filled up to its former size, and then the swelling formed over the helix, and extended over the posterior surface of the auricle, and under the scalp. It ruptured a second time, with profuse discharge, and subsequently contracted materially. Died November 24.

No. 15. J. T., aged 38 years. Chronic mania. Admitted August, 1868. During October had hæmatoma of the right ear, which was absorbed without rupture. The patient was removed to the county alms-house, September, 1869, unimproved.

No. 16. G. H., aged 50 years. General paresis. Admitted December, 1868. During April, 1869, hæmatoma of one ear commenced. It increased rapidly in size until April 19th, when it ruptured; 21st, still discharging. May 2d, discharges a little serum. May 10, discharge ceased. Ear much contracted and diminished in size. Died October, 1869.

No. 17. J. R. F., aged 45 years. General paresis. Admitted February, 1869. About two months after admission, he developed hæmatoma of both ears. Neither of them ruptured, but the ears were left permanently thickened. He eloped September, 1869.

No. 18. T. H., aged 37 years. Acute mania. Admitted February, 1869. Had a large hæmatoma of the left ear in October, 1869, which ruptured, and left the ear much contracted. Died January, 1870. Autopsy

revealed cerebral and pulmonary disease, and it was found that the perichondrium in both ears was firmly united to the auricular cartilages by a quantity of organized exudative material, which completely obliterated the cavities, which had contained the effused blood, during the existence of haematoma.

No. 19. C. J., aged 24 years. General paresis. Admitted March, 1869. About five months after admission had a large haematoma of the right ear, which ruptured and discharged, leaving the ear contracted and thickened. Died March, 1870.

No. 20. H. G. E., aged 28 years. Acute mania. Admitted May, 1869. Haematoma of right ear commenced September 6, 1869, and attained a considerable size, after which it gradually subsided, leaving some thickening of the ear. The patient is still living in the Asylum, in a profound state of dementia.

No. 21. C. S., aged 32 years. Melancholia. Admitted July, 1869. During August he developed a haematoma of the right ear, which gradually increased in size until all the lines were obliterated. While in this condition a violent patient struck him a severe blow upon the left ear with a broom-handle, causing the ear to swell very much, and producing ecchymosis of the surrounding parts, but without producing anything like haematoma. The right ear subsequently ruptured spontaneously, and discharged about half an ounce of sero-sanguinolent fluid, after which the organ became much contracted and deformed. The patient still remains in the Asylum, and is considered to be a chronic case.

No. 22. W. McC., aged 45 years. General paresis. Admitted September, 1869. Haematoma commenced in the left ear November 1, 1869, and increased in size until November 8, when the right ear began to enlarge. The left ear increased until November 15, when it was

enormous. It then ruptured and discharged large quantities of bloody fluid. It was still discharging November 28, and the ear was commencing to contract. The right ear gradually subsided. At the present time, (March, 1870,) the left ear is very small, contracted and deformed, while the right is of nearly normal appearance. The patient is now in the last stage of paresis.

No. 23. A. W., Aged 60. Chronic mania. Admitted December 1, 1869. Has been insane for more than a year. Hæmatoma of the right ear commenced January 12, 1870, and became quite large, but is now subsiding without having ruptured.

No. 24. W. S., aged 37. Melancholia. Admitted December, 1869. Complains of severe pain in the head, and has had many attacks of what he calls the "falling sickness." Is much depressed and emaciated. Refuses food, and is fed with difficulty. Destructive and suicidal. Tried to kill one of the attendants. Has to be restrained in a chair. January 21, hæmatoma commenced in the right ear, and continued to increase until March 27, when it ruptured, and discharged a large amount of bloody matter.

An analysis of the above twenty-four cases would show that hæmatoma occurred twenty-three times in men and only once in women. The form of insanity was general paresis in eight cases; melancholia in six; acute mania in four; chronic mania in four, and dementia in two. Both ears were affected in nine cases; the right ear alone in nine and the left ear alone in five, while in one case the records do not state which ear was diseased. In fifteen cases the cyst ruptured; in seven absorption took place; in one case of double hæmatoma one ear ruptured while the other underwent absorption, and in one case it is not stated whether rupture or absorption occurred. In nine cases the patients

died insane at the Asylum, nine were discharged unimproved, and six remain and are in a state of dementia.

We find, therefore, that haematooma is almost entirely confined to the male sex, and that it occurs in those forms of insanity which are incurable, also that in the great majority of cases the cyst undergoes rupture rather than absorption of the effused blood.

Several points of interest present themselves in the study of this peculiar phenomenon, and first of all the pathology of the disease is worthy of consideration. The earlier observers were of opinion that the tumor was caused by the effusion of blood into the subcutaneous connective tissue of the ear, but M. A. Foville called attention to the fact that during the absorption of the tumor the skin did not present the gradually decreasing shades of ecchymosis which is characteristic of all subcutaneous sanguineous collections, and he also pointed out that the skin was separated from the contents of the tumor by a tense resisting membrane. He therefore concluded that the effusion of blood took place between the perichondrium and the auricular cartilage. If we examine the plate accompanying this article, which represents a section of a haematomatous ear, which I obtained at the autopsy of case No. 9, we see that the perichondrium is detached from the anterior surface of the cartilage in such a manner as to leave a distinct cavity, which is lined by a smooth surface. This same appearance I have found in all the ears which I have been enabled to examine, when the patient has previously had haematooma, except in one case in which the cavity seemed to have been entirely obliterated by the deposit of a layer of organized lymph, which had re-united the perichondrium and cartilage throughout their whole extent. I therefore am of the opinion that the seat of the effusion is be-

tween the perichondrium and cartilage, and this opinion is further strengthened by the fact that after the rupture of the cyst, if the orifice be maintained open, a serous, or sero-purulent discharge continues for a long period of time, which discharge must of necessity have its origin in a secreting surface, and could not be produced in a cavity caused by the breaking down of the connective tissue by effused blood. The deformity which results from hæmatoma is easily explained by the adhesions which takes place between the inner surface of the perichondrium and the external surface of the cartilage, when the intervening cavity is emptied of its contents. In these cases, when rupture takes place, the distended and stretched perichondrium applies itself as a flaccid and wrinkled membrane to the surface of the cartilage, and the points upon each surface which formerly corresponded no longer come in contact with each other, an exudation of lymph takes place resulting in adhesion and subsequent contraction, and drawing and distorting the ear into strange but characteristic forms. On the other hand, when gradual absorption takes place the perichondrium contracts as it approaches the cartilage, and when the two surfaces at last come in contact they are evenly applied, so that the contraction which eventually ensues simply lessens the size of the organ, but does not draw it out of shape to any considerable extent. Actual experience proves the above view to be correct, since those cases of hæmatoma which rupture spontaneously, or are opened artificially, do leave far greater deformity than the cases in which the blood is gradually absorbed.

The question as to the cause of the effusion of blood which constitutes the hæmatoma is one which is much discussed, and has been differently answered by different observers.

When we consider the intimate connection between the circulation in the ears and that of the rest of the head, and remember the redness and turgescence of these organs during cerebral congestion, and their pallor during syncope, we cannot but acknowledge that any disturbance in the circulation in the brain is prone to produce a corresponding alteration in the circulation of the ears. Now in all chronic cases of insanity, and especially in general paresis, we find a tendency to repeated congestions of the head, and under such circumstances it is natural to suppose that the blood vessels of the ears become gradually dilated so as to favor the occurrence of an effusion of blood. In fact, in one case published by M. Marcé, in 1858, each of the eye-lids as well as the ear was the seat of a sanguineous effusion, as if all the capillaries of the head and face were rendered turgescent at the same time.

Besides the cerebral congestions we have another strong agent in producing peripheral dilatation of the blood vessels in the sympathetic system, and in a former paper of mine, published in this JOURNAL, upon the "Pulse of the Insane,"* I think I have clearly shown that this result may be produced simply by the centripetal excitation of the sympathetic system by strong emotion. A kind of reflex action is thus set up, which is due to the intimate blending of the fibres of the cerebro-spinal and sympathetic systems in the cranial cavity. A strong emotional excitement acts upon the centripetal fibres of the sympathetic, is reflected to the central ganglia, and reacts upon the fibres governing the peripheral circulation, and in this manner are produced the phenomenon of blushing, pallor, &c., &c. Among the insane the emotions become much stronger from the fact that they are under no control or governing power

* American Journal of Insanity, January, 1870.

of the will, and therefore tend to modify to a greater extent the functions of the circulation and nutrition.

We therefore find two powerful idiopathic causes for the production of haematoma, viz.: cerebral congestion and centripetal irritation of the sympathetic system by the emotions, and either of these causes I consider to be sufficient to produce the phenomenon.

Many authors have thought it necessary to attribute haematoma to external agencies, such as personal violence, either self-inflicted or received at the hands of others; but if this be so why we do not meet with haematoma in persons who are not insane, and who have received some injury of the ear? It is true that a few cases of this kind have been reported, but they are indeed very few, when we consider the exposed situation of the external ear, and its constant liability to injury. Two cases are reported as having occurred in the practice of Langenbeck, but in one the patient was a girl of twelve years of age, and it is especially mentioned that she was very *ignorant* and *wild*, while the second patient labored under an attack of delirium tremens; so that in both of these cases the presumption is that some pathological condition of the nervous centres existed which may be considered as the predisposing cause of the haematoma. Toynbee states however that he met with a true case of haematoma in a professional boxer who received a blow upon the ear, and who did not present any evidences of insanity; and Rupp states that he has met with this condition of the external ear in soldiers, and other persons not mentally disordered. Two cases which occurred in this Asylum, present points of great interest as regards the production of haematoma by external violence. One of them has been already given as case No. 21. The patient, who had melancholia, developed a haematoma of the right ear, and when the

tumefaction was at its height, he was violently struck on the left ear by a broom-handle, in the hands of another patient. The result was that the disease of the right ear ran its usual course, and finally ruptured, while the left ear became swollen and ecchymotic, but did not in any degree assume the appearance of haematoma. Now in this case, the injury was inflicted upon an insane patient who was already predisposed to the disease, and yet failed to produce the phenomenon. The second case was that of a patient laboring under acute mania, who was in a ward with violent lunatics, one of whom struck him a severe blow upon his ear with a boot, so that the whole organ as well as the surrounding parts were swollen and ecchymosed, and yet there was no appearance of haematoma.

The two above cases recall to my mind another, when the patient entertained very marked delusions, thinking that he constantly heard voices, in order to prevent which he stuffed his ears with bits of paper, and all kinds of filthy rubbish, and kept his hands continually pressed against his ears, and yet with all this irritation, no evidences of haematoma ever presented themselves. The above three cases lead me to believe that external agencies have but little to do with the production of haematoma, and that we must seek for the real cause among the pathological lesions connected with insanity itself.

The case cited as No. 12, occurred in a patient, who was at the time quiet and melancholic, and was in the convalescent ward, among patients who were entirely orderly, and when it was impossible for him to receive any injury or violent treatment, and yet a true haematoma developed itself.

The local treatment of this affection is a matter of but little if any importance, and I may add of but

little avail. Puncturing the sac or laying it open, results in more harm than good. The most favorable termination is gradual absorption of the effusion, since the remaining deformity is much less in these cases than in those where the contents of the cyst are suddenly evacuated by spontaneous rupture or by artificial means. Dr. Gray has, however, given me the details of one case where he observed the patient during the earliest stage of the affection, and where he found the posterior auricular artery pulsating with unusual violence, and apparently much increased in size. It occurred to him at the time to apply a ligature to the vessel, and thus shut off the supply of blood to the ear, and he proposes to do so if a similar case presents itself. Whether such a procedure will be of service can only be determined by experience.

The constitutional treatment of this affection simply resolves itself into the general treatment of insanity itself. That it indicates a diminished power of innervation and nutrition I think admits of no doubt, since we find it as an accompaniment of those forms of mental derangement which are chronic, and associated with enfeebled physical power. A general tonic and supporting form of treatment is indicated, especially where rupture has taken place and is followed by obstinate suppuration.

In conclusion,

1st. *Hæmatoma Auris* consists in an effusion of blood into the space between the perichondrium and cartilage of the ear.

2d. It occurs as a rule in persons who are insane, and is only very exceptionally found in the sane.

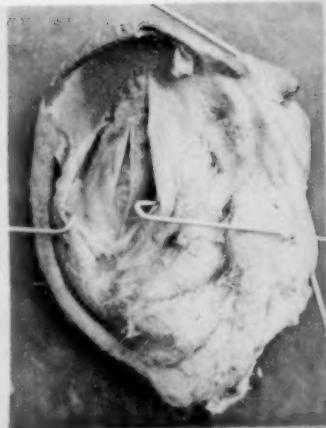
3d. It accompanies those forms of insanity which are essentially chronic or incurable, and consequently its presence indicates a very unfavorable prognosis.

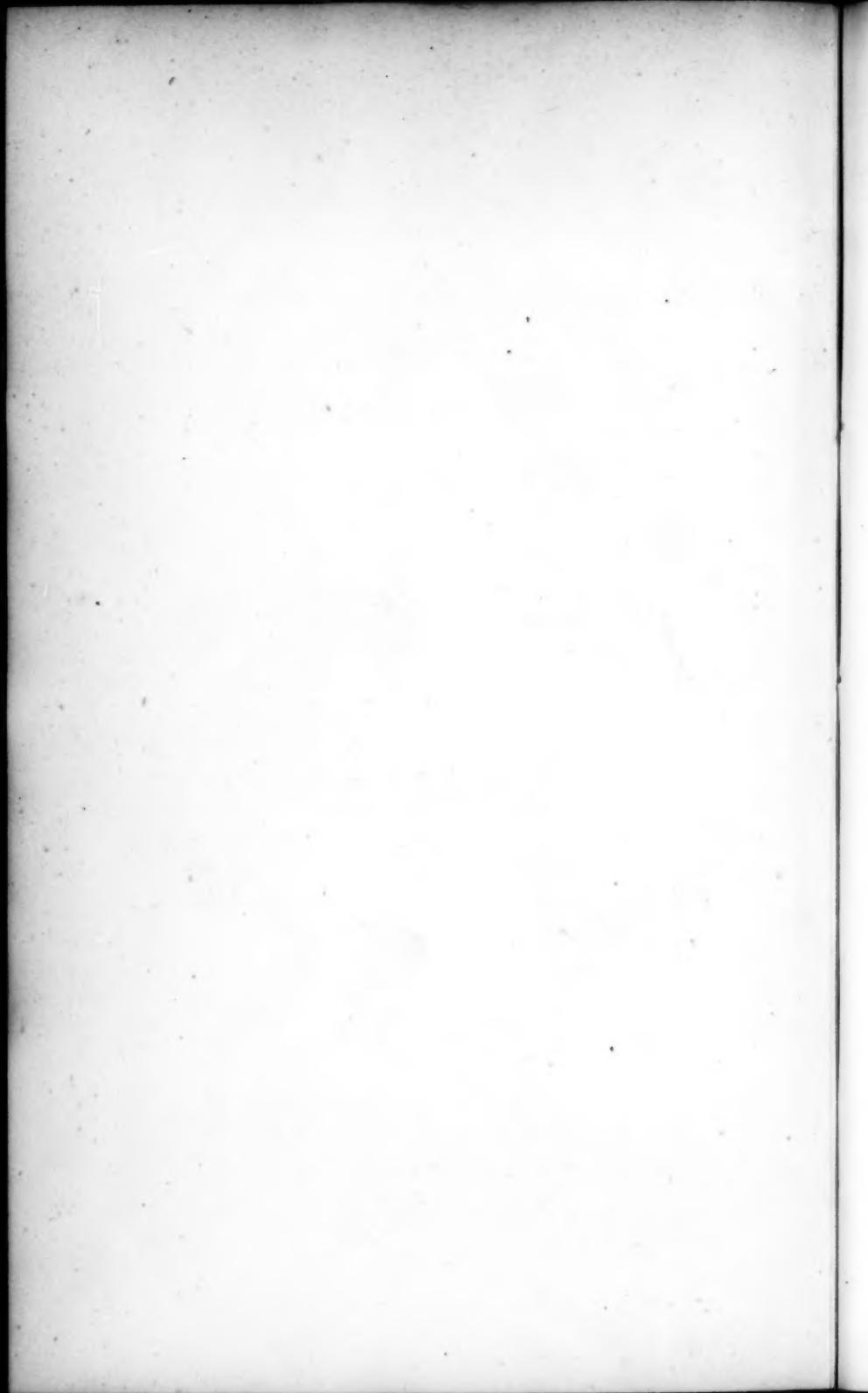
4th. It is idiopathic, depending upon a pathological condition of the brain, and is incapable of being produced by external violence alone.

DESCRIPTION OF PLATE.

The two lower figures represent the ears of the patient described in case No. 4. The left hand figure is a photograph taken from a plaster cast, which cast was made when the tumefaction was greatest. The right hand figure represents the same ear after rupture and contraction had taken place.

The three upper figures were taken from the ears of the patient described in case No. 9. The two left hand figures show the amount of contraction which took place after rupture of the cysts; while the figure on the right shows a section of one of them, and demonstrates the separation of the perichondrium from the auricular cartilage.





PROGNOSTIC VALUE OF DIFFERENCE OF THE PUPILS IN INSANITY.

BY W. NASSE, M. D., SIEGBURG, PRUSSIA.*

Since the essay by Seifert (*Allgemeine Zeitschrift fur Psychiatrie*, 1853, vol. x.,) nothing has appeared, to my knowledge, in Germany treating of the prognostic significance of the difference of the pupils in insanity.†

The results of that essay I assume to be well known; and would state beforehand that on the whole they seem to have hit the truth; still I consider them as requiring some amplifications and elaboration, since only slight materials for observations have been made use of; and this elaboration is the more necessary in the direction of the prognostic significance of this symptom, which, in a degree hardly equalled by any other, may furnish cause for a mistaken apprehension, especially in the sphere of physicians not perfectly familiar with the symptoms of diseases of the brain connected with insanity. Observations continued for years in several large asylums, during which time I have given particular attention to the difference of pupils, and the symptoms of partial paralysis accompanying the same, give me a certain claim to speak on this question.

* Read, with some slight modifications, at the sitting of the Psychiatric Society of the Rhine-Province, June 13, 1868. Translated for the *JOURNAL OF INSANITY* from the *Allgemeine Zeitschrift fur Psychiatrie*.

† I think it proper to remark that it is not my intention to enter on the question so ably and thoroughly discussed by Richarz (*Zeitschrift xv., 21-27,*) as to which of the two pupils be the one diseased: for the present purpose the statement of an existing difference will be sufficient.

In the first place I think it proper to state, that difference of the pupils is much more frequent with the insane than is apparent from the opinions which have come within my observations, at least those of German physicians for the insane.*

With these agree (besides Austin's communications, alluded to hereafter, and which refer to paralytics only) the observations of Castiglioni on the Sinaora: "*Sulle alterazioni delle pupille nel pazzi, 1863.*" (Extract from Annal. Med. Psych., 1865, v. 76.) Among 146 insane, Castiglioni found only 36 with normal pupils. An inspection made during the past year of all the sick, then inmates of the asylum at Siegburg, gave this result, that out of 229 patients only 83 were without this difference of the pupils.

But as to this proposition I remark, that at times the ratio is a still greater one; that for weeks hardly a patient is received who is without this difference; and that moreover in an asylum intended for more recent cases of mental diseases (though of course this exclusive rule is not justified by the reality,) you will certainly find a smaller number of paralytics and demented patients, who make up the large number of those afflicted with the symptoms under consideration, than in institutions which are at the same time intended for treatment. After having given my attention more especially to the condition of the pupils, I soon became convinced from my observations, that the disturbed motion of the iris is only in a few cases an isolated one, but exists frequently in connection with diseased nerves in the branch of the *facialis* and *hypoglossus*.

At first, meeting frequently with dialysis of one cheek with mouth awry, the declination of the tongue

* Jacobi, in his work on mania, notes a marked difference of pupils in four cases only, out of some fifty.

to one side, and a simultaneous inequality of the pupils, I determined to regard these symptoms as indications of general paralysis. The absence of other disturbances of motion belonging to this form, the sporadic occurrence of the above mentioned symptoms of dialysis (weakness,) and its existence without all the characteristics which accompany paralysis, taught me the mistake in my views, the more quickly as I had an opportunity of finding, without exception, those symptoms of partial dialysis in all psychical forms of mental disturbance.

It would seem as if the attention of physicians to the insane has been turned in a slight degree only to the observation of these phenomena; they are certainly very rarely mentioned, and Seifert (*vide p. 553,*) mentions having met only once amongst his cases with inequality of cheeks and of the tongue. As an example of the frequency of these cases, I would adduce the observations made from the 229 patients whom I treated at the same time in August last. Of these, 56 patients only, (14 male and 42 female) showed no difference of pupils, cheek and tongue; 40 (13 male and 27 female) showed inequality of pupils, but 106 (66 males and 40 females) showed simultaneous inequality of pupils, dialysis of one cheek and declination of the tongue: finally 27 (16 males and 11 females) with equal pupils, showed inequality of cheeks and declination of the tongue. Similar ratios have been constantly recurring in my observations, and authorize the conclusion that about one-fourth and no more of the patients under my observation show no abnormal state of pupil, face and tongue. This frequent occurrence shows that these irregularities are in no way confined to the forms of general paralysis and dementia; but involve also in a considerable measure the primary forms of mania and melancholy. Seifert has already observed the same in 24 cases, and I there-

fore consider it unnecessary and superfluous to give a more minute and statistical exposition of its occurrence in the various forms of mental disturbance. Nevertheless, I desire to mark the fact that in general paralysis I have observed the symptoms of partial dialysis more frequently than other observers. Seifert has 17 cases of difference of pupils in 25 paralytics. Pelman, (whose as yet unpublished observations I shall have occasion hereafter to refer to,) notes the difference in 25 out of 50 paralytics. Von Linstow (*Zeitschrift xxiv.*, p. 440,) has observed in one-third of his cases variation of the pupils. Of 108 cases of general paralysis which have come under my observation during the last four years, at Siegburg, the ratio was about as follows: of 25 female patients one only showed no change of pupil, three others suffered from various diseases of the eye, (Glaucoma, dimness of the cornea, Synechia of the iris,) precluding a judgment of the changes in the iris; but the remaining 21 had evident inequality of pupils. Of 83 paralytic male patients, 76 showed a marked difference of pupils; in two others were noted constant contraction of both pupils to the size of a pin's head. Two suffered from diseases of the eye, viz.: contraction of the iris and dimness of the cornea, which did not permit an appreciation of the state of the pupils, whilst in three cases only, no difference of the pupils was observed. Out of 103 cases, therefore, only 4 patients showed no changes. This coincides with the observations made by Austin, (*Annal. Med. Psych.*, 1862, viii., 177,) who asserts that he had found only two exceptions amongst 100 cases of paralysis; but I am compelled to remark that the communications of this observer, for a reason to be hereafter stated, seem to possess but a small general claim to reliability, for he deduces this axiom from his observations; that there ex-

ists a certain relation between the side of the body on which the disturbance in the motion of the iris exists, and the form of mental disease, and moreover that melancholia is connected with the affection of the right pupil, and mania with that of the left one; also that the state of the pupils is changed regularly in accordance with the change of exaltation and depression. Immediately after the publication of this essay, Pelman took the trouble to test the truth of the foregoing statements at the private asylum of Dr. Reimer, in Görlitz, making use of 30 cases then at his disposal, and he has arrived at the conclusion that they have no foundation whatever in fact. Austin has quoted 14 cases where in mixed delirium the state of the pupils changed simultaneously with the varying forms of mental disease, and in accordance with the melancholy, or exalted condition the right or left pupil was enlarged. Pelman had an opportunity for six months of making close observations on the phenomena of the rapid change of enlargement of the pupils in both eyes of a paralytic, and this case is peculiarly fit to prove the untenability of Austin's axiom.

This patient showed a very remarkable difference in the variation of pupils; now the right one, then the left, was considerably enlarged, and the change was frequently accomplished in one day, but as often within several weeks. In spite of a very exalted vanity, the patient was exempt from the properly so-called *mania dignitatis*, though showing the quick, short transitions characteristic of that form of insanity. A continued comparison of the condition with the state of the pupils, gave not only the result, that the pupil would frequently remain quite unaffected by the mental change, but that the enlarging of the right pupil might often be observed in a gayer mood, and that of the left

one more frequently when in a depressed condition, which result stands out in full contrast to Austin's assertions. I deem it hardly necessary to add that from long and continued treatment of paralysis, I have myself arrived at similar results, and that the status of the pupils in patients suffering under simple melancholy or acute mania, agrees no better with Austin's statements.

In inquiries into the conditions of these symptoms of dialysis, we must not forget that the differences of the pupils may be caused by diseases of the organ of sight itself, principally of the retina and optic nerve.

Billod (*Annal. Med. Psychol.*, 1863, ii. 319,) has already made extended observations in this respect, but he has in 400 cases found amaurosis to be only three times the cause of difference of the pupils, and has thus shown the frequent occurrence of the latter without the simultaneous presence of the former.

More numerous indeed are the variations which an ophthalmoscopic examination of the pupils of 142 patients in the asylum at Prague has afforded, (Koestl and Niemetschek, Prague, 1867; 95, 134.) Repeated investigations with the ophthalmoscope, undertaken at Siegburg by experienced ophthalmists, upon a number of patients decidedly affected with difference of pupils, have shown in a few cases only atrophy of the optic nerve, while in the remainder no affection of the optic organs could be proved. Therefore, the difference of pupils so frequent in lunatics, seems to admit of such an explanation in rare cases only. One might be led to look for the cause in the direct influence of the motory nerves of the iris, of which (as is well known,) the N. oculomotorius rules the sphincter, the N. sympatheticus the dilatator iridis. Whether this condition is a constant enlargement of the pupil caused by dialysis of the oculo motorius, or by irritation of the sympatheticus,

or is a contraction caused by the irritation of the oculo motorius or by dialysis of the sympatheticus, is, at present, a problem not to be solved; since it is impossible to ascertain by physiological experiment the share taken by these nerves. It is true that we know from the studies of Budge, (On the Motion of the Iris, p. 184,) that the enlargement through atropia takes place rather by influencing the oculo motorius; and recently Royow, (Journal of Rational Medicine, 29, 1,) according to his essays has thought himself justified in reducing the operation of the Calabar bean to the irritation of the oculo motorius alone, and in excluding the dialysis of sympatheticus, and if we compare with this the observation that the minute contraction of the pupil, rather frequently observed in paralytics, is changed constantly to enlargement by the infusion of belladonna, (atropia,) and that after the application of the Calabar bean, contraction immediately follows. (This I have frequently seen myself, in several cases of quite remarkable one-sided enlargement of pupils in paralysis.) If we consider all this, we might be tempted to ascribe the chief part in the variations of the iris to the nervous oculo motorius, but with this restriction, that this supposition is merely a guess so long as strict proof is wanting to explain the source of these nerves, or their functions. We are obliged to seek the cause of the variations of the pupil in the brain itself, as Linstow has endeavored to do of the difference of pupils in paralysis. Starting from the facts that ptosis and strabismus are generally wanting; that the pupils, immovable under the irritation of light, expand through atropia; and that, moreover, the eye is in possession of its normal sharpness of sight, he concludes that the absence of reflex action, (transmitted through the brain,) between the opticus and oculo motorius, is the proximate cause.

Budge also, (vide p. 176,) directs our attention to the importance of disturbed nutrition on the central system of nerves, as a condition tending to produce contraction or enlargement of the pupils according to its erethistic or torpid form, through the agency or mediation of N. trigeminus. This scholar is inclined to ascribe to a torpor in the nutritive powers and the sphere of feeling, an essential part in the enlargement of the pupils. This may indeed have to be confined to the cases of equal variation of both pupils in constitutional diseases, &c.; whilst for the explanation of the one-sided variations of pupils which occupy us here, scarcely anything can be gained from it.

The above mentioned symptoms, together with psychological changes, with frequent and rapid variation in the differences of the pupils in patients afflicted with brain disease, (of which a remarkable instance has been stated above, and of whose frequency my fellow physicians all have doubtless their own experience,) allows hardly any other explanation than through an implication of the centre. The temporary influence of pressure on different parts of the brain, produced by obstruction of circulation or accumulations of serum, may cause such a change, and it is thus that Leyden, (Virchow's Arch., 1866, 374,) seeks, in a want of balance in the pressure, the cause of differences of the pupils. A very interesting and pointed example of this theory has been made public by Wilks, (Guy's Hosp., Rep. vii., 1866, extracted in Journal for Diseases of Children, 1861, 37, 147,) viz.: an hydrocephalic child, in whom through a change of position of the head, whilst in bed, a corresponding one-sided enlargement of the pupil was produced at option, and the influence of the pressure and its relations were placed beyond doubt. But the co-operation of ideas in optional changes of the pupils

which has been observed in isolated cases of healthy persons, we may confidently exclude from the case of our patients. Equal difficulties meet us, when we try to explain the causes of paralytic symptoms in the localities of the N. facialis and hypoglossus. Cases, it is true, are known where one-sided paralysis of face and tongue was affected by evident disease of the roots of the nerves, (pressure through tumors, rigid arteries, etc.;) but such cases are on the whole of rare occurrence; they do not directly concern the class of patients who are the subject of our present disquisition, and do not belong to that class of symptoms which we find in the simultaneous affection of pupils, face and tongue. Partial atrophy of single branches of the nerves mentioned, (Pierreson Archiv. General 1867, x., 184,) which has been proposed to explain these paralytic symptoms of a limited character and mostly similar to paresis, relates more to the so-called progressive paralysis of Duchenne, and to the diplegia facialis, and lacks still the anatomical confirmation. The same may also be said for the otherwise plausible reduction to a disease of Bulbus medulla, (Sclerosis, Bulbar paralysis according to Wachsmuth,) in reference to our cases.

Now, however likely the existence of a central condition may appear considering the simultaneous affection of pupils, facial muscles and lingual nerves, the generally parallel development of symptoms, and the constant co-existence of psychical disturbance, the more so as the more recent investigations of C. Bernard and Deiters place the source of the pupil nerves in the uppermost breast part (Brusttheil) of the spinal cord; this much is certain, that the location of the change at the bottom, (in the medulla oblongata, or a deeper part of the spinal cord,) must remain just as undecided as the manner of the affection, in the absence of relative pathological

discoveries. That the cause of those paralytic symptoms cannot be sought in simple hyperæmia, such as occurs constantly in the beginning of psychical disorders in a certain period, seems to follow from their longer, and frequently constant duration, after the congestion has ceased; the obstinate duration of the symptoms points rather to a pathological change of tissue, which is probably to be found either in inflammation or serous exudation, or in small extravasations of blood.

The sudden rise, and slow, gradual disappearance of the paralytic symptoms, would argue in favor of the last named cause; the more so, as the one-sidedness of the symptoms points rather to that than to an inflammatory process, which is besides rarely to be found in psychical disorders. With this, the prognostic significance of these symptoms would agree, and this I ask leave still to believe. Inequality of pupils in insanity has always been deemed a highly unfavorable symptom, and the fearful idea of a deeper and incurable affection of the brain usually followed the discovery of a constant difference of the pupils, especially when further paralytic symptoms were remarked in the locality of the cerebral nerves. I confess to having formerly been somewhat of a partisan to this unfavorable opinion, and to having been led partially by this symptom in making the prognosis. Although Seifert (p. 564,) says, (and quite to the point,) that the prognosis is not absolutely a bad one, by reason of the difference of pupils, I think now, after many years' attention to this particular phase of insanity, that we may go further, and stretch the axiom so far as to say that even constant inequality of pupils in mental disorders of all kinds, (except of course the paralytic cases, in which the simultaneous occurrence of general disturbance of motion alters the view entirely, and allows the difference of the iris to appear simply

as a link in the whole series,) does in no way justify an unfavorable prognosis, but has generally speaking no material significance in regard to the issue of the disease. This may be said in like manner of the partial symptoms of paralysis, those of the face and tongue before touched upon, to which I should not even refer the importance of the disturbance of motion of the iris. They do indeed enter simultaneously with the latter into consideration, but in the course of the mental disorder they disappear sooner than those, through gradual decrease; for in most cases the development is this, that all the symptoms of partial paralysis grow gradually less with the transition of the mental disorder to a state of recovery and with increasing nutrition, and that they finally disappear entirely, while they remain unchanged for the most part in psychosis of a stationary or progressive development; but it also occurs that as one or the other of the symptoms of paralysis remains in spite of the psychical recovery, so it may also disappear, recovery not taking place. In this respect, to substantiate the above assertion of the prognostic insignificance of the inequality of pupils in psychosis, I am able to bring forth the fact, that a complete and enduring psychical recovery may follow, though this inequality remain. Of the cases at my disposal, I have selected from those treated last year the following, which were marked by a peculiarly strong difference of the pupils and which I regard as sufficiently important to justify a few short sketches at this point, as special proof in support of my views.

1. H. B., teacher, 27 years old, admitted June 27, 1866. Mother has been insane; a lively youth, educated for a teacher. In his eighteenth year was attacked with a dangerous disease of the chest. Since his twentieth year has worked satisfactorily as a teacher; was

betrothed in 1863; engagement broken off in autumn of 1865, under painful circumstances, from which resulted falling into debt; since then has been in a melancholy state of mind. May, 1866, acute mania, congestion of the brain, blood letting. On admission, height 66 $\frac{1}{2}$ inches, weight 116 lbs., mania with erotic features; the left pupil largest, the right cheek more flaccid, anaemic. Gradual recovery; discharged at end of January, 1867; weight 149 lbs., the left pupil still remarkably enlarged.

2. F. S., joiner, 20 years old, admitted November 19, 1863. Mother, grandmother and one sister insane. Youth rachitic; of ordinary parts, choleric, poor education. In summer of 1863, arduous nursing of his mother; in November, acute mania. On admission, height 59 $\frac{1}{2}$ inches; weight 86 lbs., intensely maniacal, right pupil enlarged, right cheek more flaccid, serofulous ozaena. Slow improvement; blanks of memory during illness; January, 1865, discharged as recovered, with continuing symptoms of dialysis.

3. H. W., bladesmith, 24 years old, admitted November 14, 1864. Youth lively, gifted; excesses in *Baccho et Venere*; syphilitic infection. When a soldier in the Holstein campaign, was punished for insolence; syphilitic infection (chancre and tumor of the neck,) cured in the military hospital September, 1864; at the same time maniacal exaltation and distracting hallucinations of hearing. On admission, height 62 $\frac{1}{2}$ inches; weight 143 lbs., exaltation without insane delusions; the right pupil enlarged, right cheek more flaccid, tongue to the left, anaemia. Gradual improvement with blanks of memory during illness; weight 156 lbs.; recovered in May, 1865; discharged with his right pupil still enlarged.

4. W. B., 21 years old, field hand, admitted April 8,

1864. Mother transiently, her aunt permanently insane. Youth quiet, mild, of good parts, inclined to solitude, onanous. In December, 1862, two epileptic attacks during sleep, after heavy work. In summer of 1863, fear of being drafted, melancholy state of mind, self accusations. In February, 1864, anxiety, suicidal attempts. On admission, height 60 $\frac{1}{4}$ inches; weight 116 lbs.; melancholy, delusions of being lost body. The right pupil enlarged, the right cheek (facial half,) more flaccid, congestion of the brain; gradual improvement; weight 131 lbs.: discharged recovered April, 1865, with lasting enlargement of right pupil.

5. G. D., miner's wife, 28 years old, admitted February 8, 1864. Mother transiently insane; youth feeble; of good parts; self-willed. Married six years; three confinements; needy circumstances; hard working. After a fright from the sudden death of a child, (run over,) in May, 1863, melancholy state of mind. In November, anxiety, congestion of the brain, anæmia. On admission height 58 $\frac{3}{4}$ inches; weight 90 lbs.; melancholy, blanks of memory, right pupil enlarged, right cheek more flaccid, tongue to the right, congestion of the brain, anæmia. Gradual improvement with increase of weight (117;) memory becoming stronger; recovered August, 1864, and discharged with lasting symptoms of paralysis.

6. F. L., servant maid, 26 years old, admitted December 31, 1864. Parents of weak intellect; mother's brother an idiot. Youth lively, of good parts; 1862, illegitimate pregnancy; forsaken by her lover; melancholy. September, 1863, confinement; nursing till December, 1864, together with menstruation; taking care of her mother until she died; uncertain state up to November, 1864; fright at an attack upon her modesty; anxiety; voices in the air. On admission, height 59

inches; weight 101 lbs.; anxious, depression, congestion of the brain; left pupil enlarged; right cheek more flaccid; tongue to the right; cessation of menstruation. Recovery; weight 134 lbs.; discharged September, 1865, with left pupil larger.

7. C. R., mason's wife, 49 years old, admitted May 22, 1865. Youth unknown; married at 22 years; five children; narrow circumstances; grief about a son; menstruation ceased about three years since; rheumatism and stiffness for several years. January, 1865, anxiety; voices in the air; refuses food. On admission, height 59 inches; weight 94 lbs.; melancholia; left pupil enlarged; right cheek more flaccid; tuberculous infiltration of the lungs, with fever in the evenings. Recovery with decrease of fever, but continuance of difference of pupils; weight 108 lbs.; discharged October, 1865.

8. F. K., servant girl, 27 years old, admitted May 12, 1863. Youth quiet, excitable. Illegitimate confinement April, 1863, with great loss of blood; breaks out into acute mania; delusion of being poisoned. On admission, weight 94 lbs.; mania with hallucinations of hearing and sight, afterwards changing to quiet derangement with delusions; right pupil larger, with congestion of the brain. Improvement after rubbing in of pock ointment. Recovered and discharged September, 1864; weight 112 lbs.; right pupil continuing larger.

9. R. G., servant girl, admitted May 30, 1864. A female cousin an idiot. Youth mild, of poor parts; quiet manner. Breaking out of acute mania with violent congestion of the brain, in May, 1864. On admission, height 60 $\frac{1}{2}$ inches; weight 104 lbs.; maniacal excitement with delusions of metamorphosis, (horse;) hallucination of hearing, sight and taste; congestions of the brain; right pupil larger; right cheek more

flaccid; tongue to the left; oligaemia. Gradual improvement with increase of weight (141 lbs.) recovered and discharged in March, 1865, with right pupil enlarged and declination of the tongue to the left.

10. C. K., postillion's wife, admitted May 21, 1864. Youth healthy, of good parts, mild. Strong menstruation and frequent bleeding at the nose until her marriage in 1862. Confined December, 1863, during which fright at her husband's falling sick; death of the child; breaking out of acute mania; alternating with stiffness.

On admission, height $5\frac{3}{4}$ inches, weight 106 lbs.; mania, with delusions of sight; hallucinations of high descent, &c. Congestions of the brain; left pupil larger; right cheek more flaccid; tongue to the left; enlargement of the heart, (right side.) Improvement, with regular menstruation and increase of weight (127 lbs.) Recovered, with continuing symptoms of paralysis, and discharged September, 1864.

11. A. T., peasant girl, 18 years old, admitted June 7, 1865. Youth mild; good parts; quiet; much affected by her mother's death six years ago; since then frequent fainting fits; at 17 years old, menstruation, feeble. April, 1865, after a missionary sermon, anxiety; self-accusation; hallucination of sight and hearing. On admission, height $5\frac{1}{2}$ inches, weight 100 lbs.; depression; hallucination of hearing and sight; much laughing; congestions of the brain; right pupil larger; left cheek more flaccid; coldness of limbs. Gradual improvement; weight 133 lbs.; discharged recovered in February, 1866, with continuing inequality of the pupils.

12. F. B., joiner, 53 years old, admitted September 25, 1866. Youth healthy, lively, of good parts; when grown up, happy in marriage; seven children; inclination to drink; loss of wife one and one-quarter years

ago; grief on account of a son demanding a partition of the property; cares of life; poor maintenance; heavy work and drinking. In August, 1866, maniacal excitement, then melancholy depression with suicidal thoughts; convulsions of limbs. On admission, height 63 inches, weight 117 lbs.; moderate exaltation; memory of his sickness wanting, otherwise judgment correct; right pupil larger; left cheek more flaccid; tongue declines to the right; facial muscles shake in talking; language stammering; as to the rest of the body only roughness at the first sound of the heart. Kept well for a long time, with full powers of mind; increase of weight as high as 134 lbs., but continuance of paralytic symptoms in pupil and face; discharged about end of January, 1867. After a pulmonary inflammation and hard work, with grief, relapse in June, 1868; second reception with paralytic and melancholic symptoms as in the first.

13. G. S., porter, 36 years old, admitted July 29th, 1866. Youth, poor education; becomes butcher, soldier, then porter; inclination to drink; after a fright three years ago, trembling of hands; two years ago haemorrhage; in July, 1866, called on for military service; strong drinking; mania. On admission, height 67 1-4 inches, weight 154 lbs.; abatement of maniacal excitement; no recollection of the time of illness; left pupil larger, right cheek more flaccid, facial muscles quiver, frequent stuttering, rigid arteries; first sound of heart not clear; oligæmia. Discharged after being perfectly quieted; weight 162 lbs., in September, 1866, with paralytic symptoms continuing.

14. W. F., book-binder, 52 years old. Admitted November 11, 1865. Father a drunkard, died by his own hand; all his brothers and sisters melancholy. Youth, mild, quiet, good parts; when grown up, hard

working, inclination to drink, easily excited; in 1847 transient melancholy. In May, 1864, after a matrimonial quarrel, excitement, hard drinking, since then change of disposition; loss of his wife, October, 1865, after heavy sickness; increase of melancholy, restlessness, attempts suicide; letting of blood. On admission, height 62 3-4 inches, weight 132 lbs.; melancholy with hypochondriacal features, afterwards changing to exaltation; right pupil larger, tongue to the left, hesitation in speech, congestion of the brain and disinclination to exertion. Gradually improving, weight 145 lbs.; discharged recovered in February, 1866, with continuing enlargement of pupils, which on a visit made by a friend in summer of 1867, had disappeared.

Concerning the duration of these recoveries, I have kept myself informed in all the above cases, and failed in one case only, No. 10, the present domicile of the patient not being ascertained; of the rest the continued condition of recovery has been substantiated. Relapses have until now occurred only in No. 2., who was again received into the asylum, but with a change in the difference of the pupils; and in No. 12, who came again under treatment with the same paralytic symptoms. I regret that in only one case, No. 14, where the patient was located in the neighborhood, have I been able to notice the state of the pupils continuously since discharge; the disappearance of the difference in the pupils in this case, would appear to favor the supposition previously expressed as being probably of a slow absorption of an extravasation; and the observation in No. 2, where the pupil formerly enlarged, appeared similar to the normal one on the second admission, after an absence of three years, might be added to corroborate it.

The cases communicated, concern for the greater part the so-called primary psychical forms of mania and mel-

ancholy; among others there were those also in which there were sufficient indications to justify an unfavorable prognosis, especially on account of their pseudo-paralytic character. Constant characteristics found in all cannot indeed be observed in them; yet it seems worthy of mention that in nearly all cases the symptoms pointing to hyperæmia of the vessels of the brain could be clearly observed on their admission; moreover, I would refer to the fact that the disturbance of motion in the muscles of the face and tongue always disappeared or was at least reduced to a very slight degree. Besides the above cases, numerous patients have left the institution more or less recovered, and have shown themselves fit for existence in society, who at their departure were still affected by continuing inequality of the pupils.

The objection, that the phenomena here treated of, also occur in sane persons without any conscious or noticeable disturbance, certainly cannot be entirely gainsaid. Any observer directing his special attention to the state of the pupils in the more extended circle of sane persons of his acquaintance, cannot fail to remark that single individuals of them are met who show such an inequality of pupils, not caused by other diseases of the eye, and which are usually quite unknown to them. As to the frequency of this condition, I am not in a position to give more definite information, since I have made no observations on large classes of persons which alone would give accurate results, and as to other statistical notices affecting the subject, I am ignorant of them. But with Siefert, (p. 550,) I think it doubtful if the frequency of this abnormal condition, (rightly styled a vitiam by Richarz, p. 23,) in healthy persons exists in any such ratio to the inequality of pupils in insane patients, as to justify a reduction of this

"vitium" in any measure to a peculiarity common to sane people, and I would suggest principally, the essential difference founded in the simultaneous occurrence of the other partial symptoms of paralysis; and in the development, a difference which stamps the symptoms shown in insane persons, as clearly morbid.

IN RE WILLIAM WINTER.*

(*The Value of Expert Testimony.*)

BY JOHN ORDRONAUX,

PROFESSOR OF MEDICAL JURISPRUDENCE IN THE LAW SCHOOL OF
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It is not as generally known as it should be, that the testimony of experts in any branch of science, is the least fallible of all the forms of human evidence. In fact it is that one which, beyond all others, approximates most nearly to certainty in judgment, because it consists of circumstantial evidence, superadded by way of corroboration, to skilled perception. To lawyers indeed, this assertion will seem paradoxical, accustomed as they are to summon experts for the express purpose of contradicting each other. But it should be remembered at the outset that it is a rare thing for any skilled witness to contradict himself or others on an examination in chief, if precisely the same questions be put to both. Assuming that the expert testifies without bias,

* This case arose from a Commission *de Lunatico Inquirendo*. The finding of the jury for the respondent disposed of it absolutely, and it has never therefore been reported in print. This is greatly to be regretted as the testimony of the experts was exceedingly voluminous, as well as exhaustive of the subjects under consideration.

and that the subject under investigation is one within the range of demonstrative knowledge, all the probabilities are in favor of agreement, rather than disagreement between experts.

Of course we cannot undertake to discuss here the vexed question of qualifications in experts. That it is a very grave one, and the pregnant source of many errors in judgment and much consequent condemnation of skilled testimony, is every day made painfully manifest. Nor, until courts shall more nearly agree in some standard of qualifications for such witnesses, can we hope to see this evil remedied. But taking the word expert to import one *skilled by experience*, we repeat that there is a logical necessity for considering such testimony as the least fallible of any. We will admit, nevertheless, that upon cross-examination experts are often *made* to contradict themselves and each other. The reason for this can be easily given, and it flows from the paradoxical position in which they stand before courts. The object of cross-examining an *ordinary* witness is to test his memory or veracity. But it is not as readily evident what the object (and if he were not called most improperly as a *witness*) where the right can be to cross-examine an expert. For, *cuilibet in sua arte perito credendum est*. Certain facts are admitted, and a professional opinion required upon them. This opinion is founded upon a special interpretation of those facts, and the skill and experience necessary for that interpretation resides exclusively in the expert. Now to admit that a man is an expert by allowing him to testify as such, and to permit his skill to be afterwards questioned, and tested by one who is not an expert, seems little else than a judicial farce.

So long however as experts are called by parties litigant, this absurdity will continue to be inevitable.

But the worst feature of this is, that it entails upon counsel the necessity of endeavoring to invalidate such testimony by cross-examination. Consequently leading questions are put to experts precisely as to ordinary witnesses; propositions are laid down containing the most irrelevant premises, and courts permit counsel to insist upon categorical answers to such questions. It is not difficult to foresee the result. When one man can compel another to draw conclusions from premises already prepared for him, he becomes master of that other's opinions; and when those premises are purposely intended to entrap his judgment, and though discovered by him, he is still compelled to use them in forming his conclusions, he is doubly at the mercy of counsel. A man who requires me to look through his eyes, and to tell him what I see, asks me virtually to see precisely what he does. My personality becomes practically merged in his, and his judgment thenceforth overrules mine. Can it be surprising then, that experts should appear at times so unable to defend their own opinions, as to give rise to the suspicion that those opinions are based more upon conjecture than upon demonstrable truths? The fault, surely, belongs not so much to them as to the agency of counsel, to the variable latitude allowed to cross-examination by courts, in many instances, and the unwillingness to permit experts to explain the value and application of technical words.

All persons daily recognize the fallibility of their special senses, as vehicles for transmitting impressions to the mind, and when made aware by critical demonstration, of the tendencies to subjective error under which those senses lie, in their apprehension of the most patent objective truths, are forced inevitably to the conclusion that, without the revising and ex-cogitative

power of the judgment we should become the sport of every passing impression. There is a popular saying that "seeing is believing." It is an aphorism with the multitude who give it currency, and who are surprised whenever its truth is questioned, believing as they do in its axiomatic character. Yet ask the most self-opinionated witness to assert under oath that an oar which is seen propelling a boat is broken, because it *appears* so to the sight, and he will at once contradict the testimony of his vision. Again, ask him to roll a bullet between his crossed finger ends in the palm of the opposite hand and to state what he *feels* there, and he will say two bullets. But if required to swear to the truth of this impression he will refuse, on the ground that he *knows* better. Now how does he know better? That is the point. His own aphorism, or axiom as he has been deceived into considering it, is shown to have no foundation in fact, (for it *is* not so,) nor in reason, for the judgment will not affirm it. The senses are thus proved to be incompetent interpreters, negligent servants, and deceitful messengers for translating and conveying impressions from without to within us. Deprive them of the assistance of that revising, appellate tribunal, the judgment, whereby alone we are able to *ex-cogitate* truth from error, and their testimony is wholly unreliable and therefore valueless.

It is in the *pari passu* march of the senses with mental development that lies the difference between the infant, who, not being able to judge of distances, grasps at the moon or the chandelier, and the skilful engraver, who, by the slightest scratch under a magnified vision, perfects the distant points of his perspective. The eye which can interpret the mystic symbolism that lurks in and distinguishes the paintings of Raphael or Titian, from those of Rubens, Correggio or Salvator

Rosa, is not a better physical eye than that of the ploughman which detects the blight in the wheat, or the mildew in the corn, but it is one illumined by the amplified mental vision that not only apprehends, but also weighs, analyzes, reviews and corrects before affirming or contradicting the physical verdict below. The process is, in truth, a purely judicial one, and the judgment springing from it is the offspring of debate none the less close and severe because performed within us. It is here, particularly, that is exhibited the difference between a narrow and an ignorant mind judging questions *ex parte* and influenced by prejudice alone, or an imperial intellect sitting upon some Olympian height of its own, far above the range of fear, favor or passion. On this turns the difference between a Bacon and a Jeffreys—a Marshall and a Bradshaw.

It is chiefly in these great essentials of combining circumstantial evidence with skilled perception and judgment, that lies the preponderating character of expert testimony. Necessarily, therefore, it is higher than ordinary evidence as to mere facts, and it is higher than circumstantial evidence *per se*, since the value of this latter will always depend upon the qualifications of those who seek to interpret it. But when circumstantial evidence is indisputably interpreted by a skilled judgment, then human testimony may be said to approximate to certainty as nearly as it can, since nothing higher, in the direction of establishing truth by demonstration can be accomplished by the uninspired intellect of man. It becomes a moral certainty based upon both internal and external evidence.

The main purpose of ordinary evidence in law, is to furnish data whereby conclusions may be drawn. Its office is to treat of past facts exclusively, and to link them in a chain of mutual dependence which will justify

some *a posteriori* conclusion. Every ordinary witness must testify to facts alone that are within his knowledge. His duty is simply to exercise his memory in acts of a retrospective character. Beyond this he is not allowed to go, and can express therefore, no opinions upon facts in dispute. He narrates circumstances, but does not interpret their value, nor their relations to the issue before the court. His functions are ministerial, not judicial. Memory, veracity and a belief in moral accountability are the only qualifications exacted from him.

To all these prerequisites in an ordinary witness there is further and distinctively added in the case of an expert, special skill and experience. Armed with these, he rises at once from the plane of a simple narrator of facts, to an interpreter of their value, and a judge of their consequences, not only direct and actual, but remote and contingent. He does not alone draw conclusions from past facts, but must at times reason *a priori*, and thus *foreknow*, from experience of nature's laws, what their inevitable tendencies are, and in what way they will accomplish themselves. This is the science of prognostics. It is not a mathematical one, it is true. It has no equations to express the definite value of any of the factors which complicate its results, and yet it has a basis in truth, and in experience, and may be relied upon, because flowing from the recorded operations of laws known to govern the course of immutable nature. In the lower strata of material agencies, these laws operate with a precision which belongs to the necessities of chemical combination, and the balancing of forces that have no choice of action allowed them. This is generally enough perceived and admitted, but it is not as well known as it should be outside of the science of psychology, that the laws regulat-

ing mental action are governed by principles as fixed as any in the material world; and although the operations of minds under the disturbing influences of bodily disease, or moral freedom, are sometimes inscrutable, and their future phenomena not positively to be anticipated, there are nevertheless limits within which science may foreknow them, with almost the same certainty with which she foreknows the probable results of disease.

Hence the value of expert testimony in determining whether under a given state of circumstances the probabilities are in favor of, or against certain results, as in the sea-worthiness of a ship, the surgical treatment of a limb, the architectural perfection of a bridge, or of a building in relation to bearing a given weight. All will admit these to be legitimate scientific problems, and every day furnishes proofs of the importance of solving them correctly. There cannot of course be equal precision in predetermining and foreknowing the manifestations of mental action. Yet, as before said, laws bind and obligate even here. Their orbit is less circumscribed perhaps, but it is not wholly inscrutable on that account. Measured absolutely it never can be. But relatively, we can see that probabilities are not the work of mere chance, and that every mind will be tending constantly to act in the direction most consonant to its predispositions. This law explains the mystery of style in different men, and well shows how impossible it is to successfully imitate genius for any length of time. It is by a study and faithful observation of these rules of mental action, that men learn to acquire ascendancy over each other. Judging the future through the law of probabilities they infer what has not yet come to pass, and in proportion as they can thus read the deeds of time, and travel out of the lanes of prejudice

into the broader highway of philosophy, they become statesmen, and shining lights among men.

The case which we have selected as the basis for these remarks affords so full and sufficient a proof of the value of expert testimony, even in matters that seemed to border on foreknowledge, that none will question its right to a place among those leading trials which constitute the landmarks of rational jurisprudence. The facts upon which it rested, extending as they did over a period of more than thirty years, were so patent that their uncontradicted establishment should have been sufficient to convince any unprejudiced and enlightened mind; and yet it is easy to see how, without even the mistifying assistance of legal casuistry, jurors ignorant of mental physiology, and swayed by crude ideas of our moral nature, might be petrified in the belief that moral freedom is superior to organization or condition, and may rise above it at any time by an act of simple volition. It is in the nature of a primary belief with most men that they are masters of themselves, forgetful all the while that they are begirt with laws of temperament, prejudices of education, or locality, and teasing hereditary tendencies which perpetually *obsess*, if they do not possess them, and thus abridge the range of their independent action. We have called these elements of character laws, rather than fetters, despots or obstacles, and yet they exhibit traits that belong to all three of the foregoing. It is the glory of Revelation that it teaches the mind how to conquer, and curb the quadruped instincts that energize our material nature, and sustain it through the wasting changes of life. Nor is this conquest perfect until all the members and all the instincts are brought under subjection to the mind, in as complete a relation of homage as was that of the feudal villein to his lord paramount. Moral

freedom depends wholly upon mental health and mental power, and it approximates to perfection in proportion as that power controls our instincts and actions in obedience to our unfettered will.

Turning now to the facts in the case, we will let the Record tell its unvarnished tale in the dry, technical phraseology of the law :

SUPREME COURT—CITY AND COUNTY OF —————.

IN THE MATTER
of
WILLIAM WINTER, a person of
unsound mind. } *Affidavit.*

I, —————, of said city, being duly sworn, do depose and say as follows:

* * * *

The above-named William Winter, who is a bachelor, was born on the 6th of February, in the year 1810, as appears from a record or entry of his birth, made by, and in the handwriting of his father, in the family Bible, now in my possession. He is the son of the late Gabriel and Jane Winter, of —————; the former of whom died on the 27th day of February, 1862, and the latter on the 19th of April, 1862, leaving him their sole surviving child, and leaving my two sons, who are the infant petitioners herein, their only grandchildren.

* * * *

Second. Ever since the autumn of the year 1849 I have been well acquainted with said William, who lived with his parents, at their residence in —————, and chiefly under the care and charge of his mother, from that date, to about the time of her decease, in April, 1862.

* * * *

William was provided for by his father, and lived in the same house; but he did not, during any part of this period, take his meals with, or live in the same manner as the other members of the family. From 1850 to 1857, his meals were prepared for, and taken by him upon a small pine table in the kitchen, where much of such portion of the time as he spent within the house was passed by him in the presence and society of the cook and other servants, between whom and himself there were frequent controversies and

quarrels, which occasionally terminated in combats. He assumed the government and control of the kitchen, where he ruled in person, and where his manner, conduct and conversation were generally peculiar and eccentric.

In opposition to the wishes and request of every other member of the family, he insisted upon taking, and for several years did take, his baths in the kitchen-pantry, where the family crockery was kept, nor could he, for a long time, be persuaded to desist from so doing.

His orders to servants were usually given in a loud, peculiar, screaming or howling tone, and in a way to alarm nearly every person who heard it. He would often insult and abuse the servants, by calling them by the worst and most offensive names; and he would also frequently seize water-pails, slop-pails, or such utensils as were standing in the kitchen, or the kettles of hot water on the range, and empty the contents of the same upon the kitchen-floor.

His continued presence, and his extraordinary and irrational conduct in the kitchen, rendering it very difficult to induce servants to remain with the family at any price, about the year 1857 his father proceeded to erect, for his special occupation, an additional wing to the premises; and, upon the completion thereof, his father having prohibited and prevented him from continuing to eat in the kitchen, his meals were, thereafter, usually served up to him in his bed-chamber.

He did not often associate with other members of the family, seeming most of the time to be morose and desponding, going about the house partially clothed in an imperfectly buttoned shirt and pantaloons, and often without boots or shoes, thus having a very unpresentable appearance.

His bed-chamber was usually in a very filthy and confused condition: old moth-eaten, cast-off garments, empty, and filled bottles, cans, jars, packages, vials of patent medicines, drugs, segar-ashes, boxes, trunks, bundles of newspapers, and sundry parcels and chamber-vessels, as well as numerous other articles and utensils, being strewed upon the dirty floor. He was in the habit of soiling his bed-linen very much, in consequence of which servants often objected to washing it.

In rising and retiring to rest he was very irregular, sometimes rising before dawn, and frequently sleeping, or remaining in bed, until one o'clock in the afternoon, and sometimes during the whole day. He also frequently retired to his bed in the day; sometimes in the forenoon, and sometimes in the afternoon.

His conversations with other members of the family were seldom. He evinced singular distrust and hatred of his nearest relatives, and especially of his father, with whom I do not remember ever, at any time, to have heard him converse, otherwise than in an abusive, quarrelsome, or boisterous manner. His conversations, usually without much sense, or inconsequential, were mostly confined to the subjects of the family property; expressions of hatred towards his relations and especially his father; his disgust of that law relating to inheritance, which gives to the father the estate of an unmarried son dying intestate, and of the Legislature which enacted the law; his fears that his father would make a will, cutting him off; his desire for his father's death; remarks upon the servants; very vulgar and obscene expressions; and remarks concerning the state of his own health, about which he generally complained, continually alleging, however, that it was improving.

About every three weeks, and some times oftener, he would suddenly, and without apparent cause, become very angry, his rage being generally directed toward some member of the household, but usually his father. On these occasions his conduct was, usually, very violent, sometimes terminating by his breaking furniture, or other articles in the house, or deluging the kitchen-floor with slops or hot water, as hereinbefore stated. During one of these angry paroxysms, several years ago, he suddenly overturned the table at which the family were sitting at their evening meal, thereby breaking the table-lamp and crockery into fragments, as I was informed by his sister, and verily believe.

Again, about three years since, he suddenly ran into his father's library and seizing the table at which his father was taking breakfast, threw it across the room with so much violence as to break both the table and the crockery thereon, as I was informed by his said father, at the time, and verily believe. On another occasion, about four years since, he ran into the room where his father, his mother, myself and sons, were taking tea, seized his father's new hat, and thereupon, in our presence, instantly tore it into fragments. These exhibitions usually came without previous warning or apparent cause, and were of short duration, lasting from less than one minute to about five minutes.

From the period of my earliest acquaintance with him, he seemed to have conceived the most unnatural hatred of and antipathy toward his father, whom he did not visit in his last illness, and whose funeral he could not be induced to, and did not attend.

I have frequently heard him, in the lifetime of his father, express

the wish that his father was dead; and I have also heard his father express the fear that his own life and that of other members of the family was in danger of personal violence from said son, and have heard his father express the belief that it would become necessary to take measures to have his said son placed under restraint.

I was informed, by his father and sister, that the mental alienation of said William, who was a student at Columbia College, did not manifest itself until he was about nineteen years of age; when, according to information derived from his sister, it was remarked that his mind was becoming affected; that subsequently his conduct became strange, and he wandered away from home, without his father's consent, going South and remaining for a considerable time; that, on his return from the South, he studied for the law, in the office and under the direction of his father, who after several unsuccessful attempts to instruct, and render him useful in the business of his profession, finally, in despair, abandoned the undertaking, having become convinced that his mental condition was such as to render him wholly unfit for the transaction of its duties; that, after thus giving up the attempt to pursue the law, he turned his attention to the study of medicine, for which he also proved himself to be equally incapable; that, in or about the year 1845, his late brother, Gabriel Henry Winter, perceiving his apparent fondness for the study of medicine, and desirous he should do something for his support, purchased for him a small stock of drugs, and having placed the same in a small store, then owned by said Gabriel Henry, and procured a competent person to superintend it, established said William there, in the retail drug business; but that, after about one month's trial, he was found to be wholly incompetent, and the business was therefore abandoned. I am not aware than any successful attempt was afterwards made to get him to do any thing in the way of business. I know, that after repeated attempts to aid him, his father finally became convinced that his mental infirmities were such as to render him incapable of any useful occupation, and unfit for the transaction of business.

At no period during my acquaintance with said William, did his father, to my knowledge or belief, intrust him with the transaction of any business whatever; and his father often stated to him, as well as to others, that he was not capable of transacting business. His father often expressed the opinion that William was of unsound mind, treated him as such, and frequently stated that he did not intend leaving him any property he could call his own, for the alleged reason that he was not capable of taking proper care of it.

In a letter dated Feb. 15, 1859, written by said Gabriel, to his (said Gabriel's) sister, he makes the following statements concerning said William's mental condition and conduct at that time :

" William is very bad ; exhibits decided symptoms of an unsound intellect. His conduct towards me is not only very abusive, but violent. I do not consider myself safe in the house with him ;

* * * and Mrs. Winter and the servants advise me to keep away as much as possible. He says that I shall not come there. . .

GABRIEL WINTER."

In another letter, bearing date "Monday, April 23d, 1860," written and signed by said Gabriel Winter, he uses the following language concerning said William :

" With respect to my son, he has not, for some years, been of perfectly sound mind ; is hypochondriac, flighty, tampers with his health, prescribes for himself, and will not have a physician. His nervous excitement is so great sometimes as to border very closely upon insanity. . . .

GABRIEL WINTER."

In another letter, under date Thursday, May 31st, 1860, written and signed by said Gabriel Winter, he makes use of the following concerning said William :

. . . " Of my son's unsoundness of mind I have long been aware, and of the danger of his committing personal violence upon me. . . .

GABRIEL WINTER."

* * * * *

Seventh. His conduct seems to evince monomania on the subject of music, and the purchase of musical instruments ; and designing persons have availed themselves of their knowledge of his weakness in these respects to defraud him of money, by selling to him a considerable number of old, and as I believe, nearly worthless violins, at exorbitant prices. Although he is incapable of performing upon a violin, except in a very slight and imperfect manner, I have counted fourteen violins in his possession, and of which he claimed to be the owner.

Eighth. For many years past said William has been in the habit of consuming some of his time in writing in a peculiar manner, generally using for that purpose refuse-scrapes of paper, old blank-books, and old cards, as also, to some extent, the doors and walls of his room. His manuscripts comprise short quotations, and also his own thoughts, and statements of his wrongs and grievances, real or imaginary. Much of his compositions, evincing but little continuity of ideas, containing incongruous juxtaposition of fragments, absurd comparisons, rapid transitions and unions of

discordant subjects, relations of imaginary events, very vulgar, obscene, and profane sentences and expressions, are interspersed with drawings of nude and singular figures and strange objects, the whole being jumbled together in disorder and confusion. The style of his penmanship is as remarkable as the matter, some of the words being written in letters more than two inches long, and others on the same line being of the usual size, as will more fully appear by some of his manuscripts, marked *Exhibit A*, No. 1 to No. 40 inclusive, hereto annexed.*

Ninth. Said William Winter, at an early period of his life, became addicted to the practice of the secret vice of onanism, and continued the same for many years, as I have been informed and verily believe, and as also appears by the evidence furnished by his own admissions and statements contained in manuscripts in his handwriting, marked *Exhibit A*, Nos. 2, 5, 8, 14, 39, and 40, and also by the extract marked *Exhibit B*, No. 1, hereto annexed.

Tenth. His manner when leaving the house was often peculiar; he would walk away from the door a few steps, and return, repeating this process several times in as many minutes, and each time trying the door, as if to ascertain whether the same be properly fastened, as will more fully appear by the manuscript paper, in his handwriting, marked *Exhibit A*, No. 21, and by an extract from other of his writings, marked *Exhibit B*, No. 2, hereto annexed.

Twelfth. His writings and conversation are, for the most part, inconsequential; and although he does not seem to possess proper reasoning powers, he has a degree of cunning. But his credulity and want of judgment are such as to render him incapable, to a great extent, of distinguishing what is probable from that which is improbable. He evinces fondness for low company, and his manners are eccentric, and often peculiarly childish. During my residence in ——, in the same house with him, I observed that while about the house he was of dirty habits with respect to his clothing and room, and manifested a propensity to express himself in hyperbolical and filthy language. He generally considered himself to be the especial victim of wrong and oppression. He was easily led astray, easily induced to believe the most absurd statements, yet usually obstinate and unwilling to be advised, except when the advice coincided with his own preconceived notions or appetites.

* Of these exhibits, which amount in print to nearly 200 octavo pages, we give a few extracts selected at random.

While he was thus residing with me, he was continually approached by ——, an attorney at law, who was a stranger to the family, but had, as I am informed and believe, made said William's acquaintance about the time of his father's death, and who had, since that time, induced said William to permit him to act as one of his attorneys, and counsel.

It soon became apparent that said —— had obtained a great degree of influence and control over said William; and, on or about the 4th day of July, 1862, said William left my house, and went to reside, and has ever since continued to reside with the said ——, he, said ——, having, as I am informed and believe, given up his former lodgings over his office, where he slept prior to, and for several weeks after making said William's acquaintance, hired a house in this city, to which he removed said William's personal effects, and in which house he has undertaken house-keeping for the express purpose, as I verily believe, of thus getting said William to live with him. Said William has recently informed me that said —— had obtained an agreement from him, whereby he was to pay him, (——,) fifteen hundred and twenty dollars a year, namely, one thousand dollars for counsel, and five hundred and twenty dollars for board.

Said William has stated to me, and I believe such to be the fact, that he had never known or seen said —— until after his father's death, on the 27th of February, 1862. On the 22d July, 1862, in giving testimony before his Honor Judge Alker, of the Marine Court, in an action between John Henry Wright, plaintiff, and said William Winter, defendant, being asked, on cross-examination, how he became acquainted with ——, said William testified as follows:

"I became acquainted with —— by a God-send: it was through a heavenly source, and came down from above. He is a true friend, and I hope I shall find other like friends."

Sixteenth. On the 17th day of March, 1862, upon my application, an order was made, by this Court, at a special term thereof, at the City Hall, in the city of Brooklyn, in King's County, said William then being a resident of the county of ——, in such district, that a commission *de lunatico inquirendo* should issue against said William; and on the 26th day of the same month such commission was thereupon issued, directed to ——. A jury was thereupon summoned, by virtue of such commission, for the 31st day of March, 1862, on which day the said commissioners, said Winter, and ——, his counsel, met, and without swearing any

jury or taking any other proceeding, than naming a committee, consisting of _____, medical experts, to inspect the said William Winter, and examine him, as to his mental condition, by the consent of the parties, adjourned to the 7th of April, 1862. The said physicians thereupon inspected and examined said William; but, on the 5th of April, 1862, and before they had concluded their investigation, I signed a stipulation with said _____, that such proceeding should be discontinued; and on the 7th of April, 1862, and before said physicians had made their report, upon the consent of both parties to such proceeding, an order was duly made and entered, by this Court, at a special term thereof, held for the second judicial district, at Brooklyn aforesaid, that the said order of March 17th, 1862, should be, and the same was, thereby vacated, the said commission superseded and all proceedings thereunder discontinued.

Seventeenth. For more than twenty years last past, his mind has been, and now is, in a condition of legal unsoundness, as I verily believe, and as will more fully appear by the exhibits hereto annexed; I verily believe that he is incapable of governing himself or managing his affairs; that he is wholly unfit to manage property or protect his own interests; that if left to the management of himself and his affairs, he will become the victim of fraud or folly, whereby his estate will be wasted or squandered, or he will, in some fraudulent manner, be deprived thereof.

EXHIBIT A.

[*Being Manuscript in the Handwriting of William Winter.*]

No. 1.

Enamoured Spiritualist. "Who will show us any Good. ????"
Ans. "My Kingdom is not of this world!"—*Christ.* 'A Tale just one that memory keeps For golden music—'till some 'chance' Vibrate the chord whereon it sleeps.' The Withering Curse. *N. P. Willis.* 'Curse God and Die.' *Job.*

At the age of Fourty four, four months, and seventeen days, I resided with my Parents in the Village, and kept constant company at *Hicks' Pavilion.* Being in a '*Psychologic state*' from *ill health arising from Acrasy of the Brain or Dementia.* 1 "who shall show us any Good ? " He shall enter into his House ! page 2 "Without our shame; within our consciences—Angels and grace—eternal hopes and fears. Yet all these fences and their

whole array One cunning Bosom—Sin blows quite away,” on *Title=page* of ‘E. S.’ *George Herbert*. Fell into the ‘Turba’ of Death: June 28, 1849.

“There is a Divinity that shapes our Ends Rough=hew them as we will.” K. “When he that is guilty most thinks him secure Heaven’s vengeance against him is nearly mature.” : ‘the understanding (or “Reason”) only perceives facts and draws inferences—this induction is completed *and* after it experiences no tendency to *Adore* the God whom it has *discovered*.” Combe on ‘*Veneration*.’

EXHIBIT A.

[*Being Manuscript in the Handwriting of William Winter.*]

No. 4.

G. The Almighty—there’s not much to love about him—and if he wants us to Fear (!) he’s a Fiend. The Almighty himself is Two-faced to wit—the Fire Hidden by Light Spirits |- Between two Fires. “Those that “Use” y Sword Shall Die by the Sword. Friendship. Love & Hate are Stimulants of Life. God—as a Ruler—is a Disgrace to Himself. Ed. Eglee. ‘Why havn’t you been over our way?’ Winter. ‘oh, it was an accident’ (!) *Ed. E.* ‘I hope you won’t Die by an ‘Accident’! ‘Why?’ Because I want you to die a natural Death. and ink. *Edward Eglee*. (and not ‘out of Common = course’): ‘Turba takes it—and makes a figure of it!’ does Behmen say so. K. and in the very same conversation spoke of *mine* being an ‘unnatural Father’! (such a man as that is! Burling P. Wright, &c) and also in the very same conversation made use of the words ‘*we’re never satisfied!!!*’, “Search the Scriptures.” : “The Spirits searches thro’ all things: even y *Deep* things of God.” Spiritual == Raps” *St Paul*. A “God is the great—out=worker who by his works—shows his attributes” Revd. Dr. Bethune “on Works & Labor.” N. Y. Tribune of Jan. 19 | 54. 9. “For we shall here describe a very earnest matter: —viz. (Duality of God): : “*Be not deceived, God is not mocked*”: he has in his Power *Heaven & Hell* “(order” and dis“ order”) or *Harmonious Dischor*. ‘Particular Hell’: 23. Behmen. Ques. 30 on tomb=stone: nail in Sure place “or Goad (God) ~~is~~ : For from the History of the (of the Bible none should take upon him to A be a master (or call himself a knower of the Essence of God—but from the Holy=Ghost (which appeareth in another Principle: viz., in the Third: for none can find

God,, without the Holy Ghost: Behmen's Works. p. 7. call Bible : "I never could get the—sense o' that" (viz: the 'Harmonious Dischord') Harry Vale. Harry French Little Cat=killer at Howards. "Salus Populi Supremalex." We—The people—will put Hell to any man that does not come up to the chalk=line of Duty (to his father) ~~if~~ There was a whole 'Posse' of them !' Squire Willets 'I'll set the Hounds on to you !' *B. A.*

EXHIBIT A.

[*Being Manuscript in the Handwriting of William Winter.*]

No. 5.

'A victim of Sensuality and Paralysis of mind the following morning I remained late in bed: the following reflections there came across my mind, to wit, that 'The Sensual life has always proved to be a blind delusion and a bitter disappointment. Its realizations are widely different from its flattering promises, &c. 82. A victim of *Sensuality* and consequent *Paralysis* of Brain *Mind*, the following morning I remained late in bed. Biondetta, you know not what you are about, '*in the day that you eat of my body I shall surely die!*' *Genesis* 166. A victim of "disguised selfishness" it laid me open defenceless to my enemy, who abused his power and made *Errata*, for Paralysis of Mind—but Paralysis of Brain—see above.'

When our repast was ended, they proposed taking a walk towards y Ruins of Gehenna. We immediately set off 'Arrived. 56 He was sitting on the side of his bath, placidly gazing in a mirror, whether or no it was y 'Mirror of the Graces' we are at present utterly unable to determine. You had evoked the adversary of souls, and supplied him by a long series of indiscretions. I had no sooner spoken the word than the Earth opened just outside the circle and swallowed the dog; and from the chasm thereof issued a sulphurous flame, which though more 'blue' in its tint, yet rivalled in majesty the rays of the noon—day sun. The earth closed the flame was extinguished, when, as soon as my eyes had recovered their vision, I beheld a woman in the place the dog had just occupied. might ennable my essence: with inward pain my heart—strings sound, I groan with fiendish spite Horror and fear beset me round 223 Among the — Shades of Night how could I hesitate long. to adopt those measures by which I might ennable my Essence and become another Principle.

When I had ended my story, he collected himself a little and said: ‘*Your Guilt is all your own*; you had evoked the Destroying Angel throughout the whole course of your life, and supplied the Prince of Darkness—by a long series of indiscretions—but more particularly that of Portici—with the various disguises that might.

Shortly after the discontinuance of the proceedings under the above Commission *de Lunatico* in April, 1862, Winter went to reside with his self-appointed guardian, the lawyer heretofore alluded to; and having received moneys from time to time from his father’s estate, evidently disposed of it for the benefit of others more than himself. From April, 1862, to January, 1863, a period of nine months, he received \$2,150, of which he gave the following account :

Expended at his home, (for what not stated,) - - - - -	\$283
Paid on account of law proceeding, (meaning the Commission <i>de Lunatico</i> , which it will be remembered never sat nor came to a trial,) - - - - -	\$375
Paid Mr. ——’s allowance (his counsel) - - - - -	500
Purchase of family articles at auction, - - - - -	104
Outlay for <i>iron safe</i> , and other articles, - - - - -	300
Personal expenses, - - - - -	200
Board, - - - - -	260
	<hr/>
	\$2,022
I owe —————, (mentioning four lawyers by name, and others,) - - - - -	\$500

Recalling the fact that this man had voluntarily lived on the same plane as his father’s servants, or even lower, so far as dress or wages were concerned; that no change in his habits occurred from April to December, 1862; that he was a bachelor, and boarding at as cheap a rate as a mechanic, and that no legal proceedings occurred during that time to which he was a party, except the Commission *de Lunatico*, which Commission, issued on

the 19th of March and discontinued April 7th, never came to a final hearing—recalling these things, it will be seen that the expenditures in superfluous fees to counsel, the first one of whom was immensely overpaid, and the four others, unnecessary in every sense—all exhibited an utter ignorance of his real condition; an incapacity to use money prudently, or to protect himself against imposition and undue influence; and lastly, mental weakness in submitting himself and his property to the dictation of an unprincipled lawyer.

In view of these circumstances, a second Commission *de Lunatico* was issued upon the petition of his relatives in January, 1863, and upon the trial of the issue therein raised, all the allegations set forth in the affidavit hereinbefore quoted were verified and corroborated by a large number of witnesses who had personally known Winter for many years. It is here that the chief interest in the case centres so far as the testimony of experts is concerned, and it is here also that the question will naturally suggest itself whether a Commission in Lunacy, without a single psychological expert upon it, deserves to be considered in law as a competent tribunal.

The composition of every court is always understood to be related to the nature of the subject matters with which it deals. Wherever these matters greatly differ in their essential character it has been found not only expedient but necessary to create correspondingly different courts to adjudicate upon them. Hence, the origin of separate tribunals with separate jurisdictions; hence, the origin of Courts of Common Law, of Equity and of Admiralty; courts with and courts without juries, Courts of Nisi Prius and Courts of Appeal. As a rule of practice based upon the necessities of qualification, and universally recognized as most equitable to all

parties in interest, the same judge never presides in two courts of essentially different jurisdiction. The wisdom of this course is too obvious to require comment, and the rule is in itself the best test of a high civilization.

In the course of a trial counsel are often called upon to demur to the jurisdiction of a court. This plea will always be listened to if offered at a proper time. But courts are not equally ready to have their composition questioned, because it is an undoubted reflection upon their competency or impartiality, and the point in consequence is seldom raised.

Nevertheless the fact remains patent, that in a special tribunal created to try a special issue like insanity, some degree of special acquaintance with that issue should be represented in the composition of the court. It is not like an ordinary *Nisi Prius* trial, where insanity is introduced as an interlocutory plea, whose validity is to affect the general issue. There the question must be adjudged according to the rules of the forum in which it is raised. For it is part of a system of pleading, though subordinate always to the main question under discussion. The court therefore must decide it *in situ*, and under the best light it can obtain from experts summoned for that purpose. It is different however with Commissions of Lunacy. They are tribunals created for a specific purpose, and for no other. They have no discretionary powers outside of the field of their appointed duties, and those duties are purely inquisitorial. Hence, they differ legally as much from any other tribunals as these do among themselves; and though derivative in character, and their judgments without legal value until affirmed by a superior court, they are still entitled to be constituted with some relation to the subject matters coming before them.

It should not therefore require any argument to

show that, upon the simplest principles of analogy and justice, a Commission of Lunacy can never be a *competent* tribunal to try such an issue where one or more experts are not members of the court. Nor can we see how the presence of a jury adds aught to the competency of the tribunal, or the illumination of its investigations. Certainly, the summoning of experts is a virtual confession of the want of light by some one, and inasmuch as the jury are to be the final triers of the issue, it is plain that it is more on their account than that of the Commissioners that experts are called. In other words, in enlarging the court, we have diminished its competency. The conclusion which follows is inevitable. If a judge can sit in equity without a jury, and administer justice impartially, simply because he is both competent and honest, by parity of reason a Commission of Lunacy properly constituted can as justly, in the same way, determine an issue of insanity. Numbers by themselves can add nothing to the competency of a tribunal, where one branch of it is notoriously below the level of the other in judicial capacity. Nor, because insanity is an issue of fact can a jury of laymen decide it better than expert commissioners, or, even be of any assistance to the latter in helping them to a conclusion. It is always seen that experts have to be summoned for the purpose of illuminating the minds of the jury, because, although the latter are judges of the facts, they are not able to pass upon them until they have first been taught how to read and interpret their value. The competency of a lay jury to decide an issue of insanity is thus shown to owe its origin solely to the agency of experts. In the presence of these facts, we are forced to the conclusion that the introduction of a jury into an Inquisition of Lunacy is superfluous, and more of a hindrance than a help to the discovery of truth.

It is generally thought, upon a superficial view of the elements out of which a Commission of Lunacy should be formed, that, by placing *a physician* upon it, the medical qualification of the court is sufficiently secured. But *any physician* is not qualified, *virtute officii*, to supply the court with that measure of light upon the subject of insanity which it needs in forming its deliberations. The fact that the Commissioners may summon to their aid experts is not sufficient, either, in itself to supplement this deficiency of special knowledge in the court. Its judgment, as a rational exposition of the relations of allegations to proofs in the determination of an issue of insanity, can only be properly pronounced by those who are professionally habituated to inquiries of this kind. The law of truth springing from contraries is nowhere more signally exhibited than in investigations of this class, and as between a non-expert physician and a lawyer sitting to examine witnesses, the lawyer would have the superior advantage in eliciting facts, even though at the same time, neither he, nor the ordinary physician could set their proper value upon such facts, or apply them with the greatest scientific accuracy to solving problems compounded of physical, mental and moral manifestations. Both would simply be in the condition of Milton's angels, who

“ reasoned high,
Of Providence, foreknowledge, will and fate,
Fix'd fate, free-will, foreknowledge absolute,
And found no end, in wandering mazes lost.”

Winter's case was tried with extreme care and fairness. The issue was too plain *in presenti* to afford much ground for special pleading. A score of ordinary witnesses substantiated the allegations set forth in the affidavit heretofore quoted by us, and the numerous

volumes of distempered and incoherent compositions in Winter's own handwriting, dating back a score of years, were an unanswerable proof of mental weakness, such as has no necessary connection with simple eccentricity. The point to be decided was one relating, not to his present, so much as to his future capacity. It was a point which rested upon past and present facts, and which, assuming the laws of nature to be immutable, was, *ex hypothesi*, demonstrable by the experience of experts in this, their habitual and therefore legitimate field of inquiry. The circumstantial proofs sustained the allegations of the petitioners, and the experts not only expressed their opinions corroboratory of these statements, but in giving their opinion of future capacity were sustained by legal presumptions as well as by their special experience.

Divested of all adventitious coloring, the issue was simply this, "*Whether a man who, for thirty years had shown all those traits of character which belong to imbecility, and had shown no other, was competent to take personal charge of a large estate, having never had any experience whatever in business, nor been accustomed to handle any but the smallest sums of money?*" Of course this was, in the eyes of laymen, a pure question of fore-knowledge bordering upon prophecy, and the experts introduced by the petitioners labored under the disadvantage of being compelled to assume that, which they could not bring proofs absolute to support. In every ordinary proposition, something is always omitted, because understood to be generally conceded. Every conclusion of judgment, implies antecedent though latent premises. As for instance, if we say "the sun will rise to-morrow at six," it is understood that we mean, "provided always the economy of nature continues as in the past." This is not prophecy, but logical inference, susceptible of demonstration.

From the very first it was seen that the difficulty of establishing the fact of future incompetency would arise from two causes, viz., first, the inability to prove acts of wanton extravagance in the past, and second from that delusive creed of the multitude, that no one knows what will occur in the future. Between these two horns of the dilemma the petitioners were compelled to take their position. On the first point indeed they could adduce some proof, as for instance the many violins purchased, and the unnecessary employment of counsel. But to both these allegations a rejoinder might be, and was made to the effect that the former argued simple eccentricity through love of music; the latter might be due as much to the wishes of counsel asking for assistance, as to the weakness of mind of the defendant. In any event the point was not considered pivotal, nor one determining anything in relation to his future conduct. Seven physicians examined on behalf of the petitioners, agreed substantially in their diagnosis of imbecility, and several among them, well recognized as experts in insanity, unhesitatingly pronounced that it was unsafe to entrust a mind as weak as Winter's with the charge of a large estate. Judging by analogy from the case of a child, whom all would agree was not competent to handle large sums of money, however sane he might otherwise be, we should say that this opinion of experts relating to a man of fifty, with a mind never advanced beyond that of childhood, was an opinion resting as much upon common sense as upon scientific skill and circumstantial evidence. To all men who are willing to see, this judgment seemed inevitable from the premises. It was the only one which could be logically defended under the light of positive demonstration. The problem as stated to the jury upon uncontradicted evidence was simply this: Given a man proved to have

continued an imbecile for thirty years, and what is the inference as to his future capacity to manage a large estate?

To be sure it would have seemed like arrogant presumption in the experts to aver that they *knew* his future incapacity. They did not undertake however to speak as prophets nor absolutely in relation to the certainty of this fact, but simply as to their *belief* in the premises, for they spoke only as men of science, and science does certainly possess the faculty of prevision. If science be worth anything it is precisely for the revelation it makes to us of fundamental laws, under whose government the world of matter exists. Nor, because of our inability to trace the operations of the mind, are we authorized to infer that it is above the reach of analogical laws specially adapted to its own character. The acceptance of this proposition as a necessity flowing out of our moral freedom would force us at once into a domain of chaos, where education becomes an absurdity, and all is left to chance or miracles.

It is unquestionably true that we can legally prove little or nothing relating to the causes of mental manifestations. Remembering this embarrassment in matters belonging to the present, it would seem to follow that the perplexities of the problem must increase with the length of the perspective. But in reality this is not so. For, we can as little infer what *will* happen a minute hence as a century hence; and contrariwise, what *should* happen under a recognized system of laws an hour hence, should, under similar circumstances, happen a century hence. All that is necessary to prove is established and immutable laws, whence must flow the corollary of similar effects from similar causes. The weakness of Winter's mind was proved, and although there was some quibbling over the term imbecility as applied

to its condition, it remained an uncontradicted fact that he had made a foolish and injudicious use of the little money received by him, which fact when taken in connection with the state of mind in which he had been for thirty years, justified the experts in asserting their belief in his future incapacity to handle large sums of money.

To all these propositions the defence argued speciously that what seemed weakness of mind in money matters was nothing more than any man might exhibit, who, never having had any experience in financial operations, begins his acquaintance with them by committing errors. When the best financiers in Wall Street, with the ripe experience of a life time before them, occasionally missed their mark and were ruined, was it to be wondered at, or unexpected, that a novice should err in his first use of money? And after all how did men ever acquire prudence except by the experience of loss? To argue that a man was unfit to control a large estate because he had never previously done so, was to say that no man should ever be allowed to acquire more means than he had: that he should never undertake what he had never before done, and finally, that we must all stand still until we had first learned to walk.

In reference to the opinion of the experts, other physicians were called to show that they did not consider the respondent absolutely incompetent to transact business. They thought him an eccentric and weak man, but they had seen others as weak as he transact business, and they could not pronounce him less competent to manage a large estate than any similarly inexperienced person. Under this light counsel argued that it was impossible to foreknow what a man would, or would not do, under varying circumstances; and as every one was entitled to do with his own what-

ever he pleased, so long as no one was injured thereby, the respondent was at least entitled to a trial, and if found squandering his property and unable to manage it, then it would be time enough to restrain him in its control. The jury were also told that experts can only interpret the present and actual, but never the future and potential. That in these latter respects they are on a footing with other men, and their opinions of no greater consequence. How, for instance, could any man foreknow how another would act under circumstances not yet in existence? And if we could only judge of the future from the past, how could it be said that a man not only was, but was to be incompetent in the future who had never been tested in the present? If Winter had never managed a large estate, how could any one know that he was not competent now, or would not be in time? His previous life was treated simply as that of an eccentric man whose pride had been wounded by an unkind and parsimonious father, and who had acquiesced from necessity in the position of dependence and social inferiority occupied by him.

These points, founded in sophistry, yet appealing to popularly accepted ideas of the legitimate range of human knowledge, produced their desired effect upon the minds of the jury. Prognosis to laymen is simply absurd, if not unintelligible. They believe, indeed, that, somehow or other, by figures mixed with guess-work, an astronomer foretells an eclipse, because every year affords recorded proof of this fact. But when it comes to human conduct, there is a superstitious haze surrounding incentives, causes of action and powers of self-control, which, with the multitude serves to obscure the intellectual vision, and the man who undertakes to pierce through these mental cobwebs and apply systematic laws to the government of this interior realm, is

considered to be somewhere between a fool and an atheist. Yet the wonders of transmutation daily effected by modern chemistry so far transcend the wildest dreams of mediaeval experimenters that this age, rather than theirs deserves to be called the age of romance, as well as the age of positivism and law. The inquisition which condemned Galileo would have made an *auto da fe* of Sir Humphrey Davy, Faraday or Morse. A man who could convert a dung-heap into the most fragrant extracts for the toilet; or obtain from sooty coal-tar the most brilliant and variegated colors; or make a messenger-boy of the lightning, would, in the early colonial days of our own country, have been punished as a sorcerer.

It is true that the triumphs achieved by physchological medicine within the same time, may not have been as glittering to the eye, or as exciting to the imagination as those accomplished by chemistry, but they have been so magnificent of their kind, as shown in the greater number of recoveries, and the general amelioration of all the conditions of the insane, that the treatment of insanity to-day is, in the largest proportion of acute cases, one which give as logical foundations for forming a correct prognosis, as in most bodily diseases. In fact the rules of recovery as between acute and chronic cases are found to be analogous to those regulating other diseases. These laws are familiar to experts. They cannot be known of course to the world at large. When all these facts are taken into consideration, no one will be surprised that a jury of laymen placed between the difficulties of intricate scientific problems, and the incapacity of those frequently undertaking to expound them, should, at times find themselves led into realms of mystification where all the roads seem to cross each other, and all the guide-boards speak in a foreign tongue.

As has been doubtless anticipated, the jury found for the respondent's competency. In doing this they imagined themselves protecting an innocent man against the cupidity of relatives. The sequel shortly proved that their verdict placed this unfortunate imbecile not only pecuniarily in the power of those who surrounded him, but that even his person was subjected to restraint and sequestration by them. A few brief lines will suffice to complete this dismal epic. Soon after the defeat of the Commission de Lunatico, Winter executed a deed of trust to an imprincipled lawyer, who thereupon took charge of his property. He himself disappeared from public view, and once or twice in the interval of several years was seen clad in his usual slovenly way, and exhibiting the same traits of incurable imbecility.

Meanwhile his trustee giving evidence of a wealth somewhat rapidly accumulated, some two years ago proceedings were sought to be instituted against him in Equity, by Winter's relatives, for the statement of an account, and on attempting to make service of papers upon the *cestui que trust*, and to have him unite in the proceedings, his *locus in quo* could not, after many months of fruitless search, be ascertained. There is no doubt that he was kept concealed either voluntarily, by being told that another commission was impending, or perhaps involuntarily, and through coercion, without sanction of law. This virtual restraint of his person has continued for several years, and may, for aught that we know, still continue. This is not the place to inquire what remedy exists in our jurisprudence for such a wrong. Under the general maxim, *Ubi jus ibi remedium* there doubtless is one. But he to whom this remedy primarily belongs, either cannot, or will not move in the premises, and in order to invoke the in-

tervention of a court of equity, wrongful acts must be shown, which it may be difficult to prove absolutely, balancing as they do between *torts* and *breaches of trust*.

Our motive in commenting upon this most instructive case was mainly to show that the value and precision of skilled testimony is generally underrated because not understood. We have endeavored to show the foundations upon which it rests, and the causes which render it less fallible than ordinary testimony. Nor do we think the differences of opinion occasionally occurring between alleged experts any refutation of our doctrine. There are, and can be, no true oppositions in science. The Apostle Paul properly stigmatized such ideas as errors, because "falsely so-called." It must be remembered also that many men are called experts *ex comitate*, who are not so in fact when critically examined. We cannot tell from a man's opinions what his competency is, until we examine the evidence upon which those opinions are formed. Sir Matthew Hale writing the history of the Common Law, is a different man, mentally, from Sir Matthew Hale presiding at the trial of witches. In both instances he judged from circumstantial evidence, but in the one he saw its import clearly, in the other darkly and as through a glass.

All men are not equally trained in the art of sifting evidence, and until the law of antinomies be mastered, how few there are who acquire experimental knowledge of the fact that truth springs from contraries. Without this experimental test any man can find refutation at the end of every universal proposition; for when modal conditions are excluded from particular instances, the point is soon reached where affirmation and negation meet. This is the quicksand in which experts sink who attempt to justify their opinions to others by too much amplification of application. They lose themselves midway of

similarity and identity, and being thus readily confuted in their conclusions, the idea arises of a practical disagreement between them, when in fact it is only a difference in the angle of vision under which the subject is viewed.

To obviate this tendency, which springs from the dialectic necessities of an oral examination, let the interrogatories be propounded in writing, and agreed upon between the parties as in commissions to take testimony, and we feel sure that differences *toto caelo* between experts will become in future so rare as to be considered exceptional, instead of usual. It is more often counsel that force experts to disagree than any virtual difference of opinion between them. When, therefore, the expert is allowed that freedom of mental action in which no conclusions are forced upon him by premises of another's selection, but only by those of his own, then he will cease to be treated as a party witness, and stand where he belongs as an *amicus curiae*, whose opinion is in itself a judgment to guide as well as to inform the court.

CHEMICAL EXPERTS.

We cannot bring this discussion to a close without anticipating the refutation which may be offered by the citation of disagreements between a class of experts, whose labors are performed in the field of molecular physics. We allude now to chemical experts, particularly when engaged in making qualitative analyses. But the fact of a disagreement does not necessarily imply a positive contradiction, nor is it unsusceptible of explanation, or even reconciliation, with the theory under discussion. Chemistry *per se* is one of the most precise of sciences, being in fact a branch of positive mathematics. Her results can be expressed in written

formulae, having definite numbers representing ratios of equivalent combination. No error can occur in her laws, because nature never contradicts herself. The disagreements of experts can only arise from want of skill in laboratory manipulations or dishonesty. With the latter, as a purely moral question, we have nothing to do, since it is beyond the purview of our inquiry. As to the former, it is sufficient to say that, no man can be considered a chemical expert who is not a proficient in laboratory manipulations. The presumption of this proficiency must be sought for in general reputation no less than habitual occupation. If a man be truly an expert and honest, then the charge of paucity of tests, or inferiority of instruments employed in a given research, can never be laid at his door, because of the necessary number of the former, or quality of the latter he must ever remain an acknowledged and competent judge.

Again, when it comes to the question of whether all possible means of discovery in analysis have been exhausted, it may be said that whatever is universally regarded as a characteristic test is as absolute proof in itself, as though that one test had been multiplied into fifty others; and while, relatively to the importance of a subject like the search for a poison in a case of homicide, it is eminently proper that an expert should duplicate and triplicate his proofs, he should not be compelled to go beyond a reasonable point even in this particular. Cumulative evidence indefinitely collected gathers no additional value from the fact of its extent. The fall of one apple proves the law of gravitation just as indubitably as a shower of meteorites. Where, therefore, an expert of unquestionable skill finds a substance by two or more characteristic tests, it is not a disagreement in fact, if another expert could not find it short of

ten or twenty, and would not have been able to recognize it through the fewer tests employed by the first experimenter. For, if an indestructible substance exists in combination with any given body, there is a greater presumption that a chemical expert will be able to discover it, than that he will not; and if no such substance be there present, there is a greater presumption of his discovering this fact, than there is of his producing such a substance in the course of his manipulations, and mistaking it for an original constituent of the body under examination. These presumptions flow from that law of disjunctive judgments, in which, to quote the very terse words of Sir William Hamilton, "a plurality of judgments are contained, and which stand in such a reciprocal relation, that the affirmation of one is the denial of the other."*

HOSPITAL AND COTTAGE SYSTEMS FOR THE CARE OF THE INSANE.

The proper accommodation of the insane in a large way must be a subject of continual interest, so long as perfection is unattained, and is yet supposed to be attainable. The charitable bent of legislation, all over the civilized world, and particularly in this country, which is expanding its borders and populating them with marvelous facility, and the more enlightened views which are daily illuminating the subject of insanity and its treatment, combine to add importance to discussion and value to experience.

From the solitary and abject state of ordinary domestic seclusion, to the organized and thoroughly considered arrangements of a government asylum, is a long

* Lectures on Logic, vol. 1, p. 84. London edition, 1860.

leap, which leaves midway other designs and contrivances of various degrees of merit, having their respective advocates and critics, as well as their respective advantages and objections. The proximate practicable point of perfection seems to be an establishment, under official authority and discipline, in which system and economy shall govern expense; high professional skill and experience shall direct classification and treatment; suitable regimen of diet and medicine shall restore health or soothe disease; and exercise, fresh air, regulated labor, and pleasant recreations, quiet or active, shall be constant ministrants and aids to ease and amuse the necessary confinement, and contribute to that restoration which usually attends the early and thorough application of proper methods of relief and cure.

Even such establishments, capable as they doubtless are of suitable provision for large numbers, have a limit to their capacity, which practical and sufficient experience shows ought never to be exceeded; and within which they are probably as efficient for their purpose as any system that has ever been devised. It has been shown that with good management, intelligent supervision, and due classification and arrangement, five or six hundred patients may well be under one superintendence or control; and that more than such a number is too burthensome for the energies and devotion of any man, especially for any such man as ought conscientiously to be intrusted with so grave and exacting a responsibility, involving not only mental labor and anxiety, but great physical activity. With such a field of observation, he ought, however, to be able to command sufficient leisure to record and digest his experience, and to give his profession and the public the benefit of it; instead of being confined so exclusively to his daily routine as to sacrifice such an important fruit of his labors.

Conceding, therefore, as experience requires us to do, the feasibility of such comprehensive undertakings, and the necessity of their being under the civil authority, and mainly supported by its munificence, a question still remains as to the best mode of effecting their practical purpose; what sites, what structures, what internal arrangements of them; what classification and distribution of inmates; what conveniences for warmth, for ventilation, for bathing, for diet, for vesture, for attendance, for exercise, and for recreation; shall be provided and maintained for the most perfect fulfillment of their grand object.

It is not our design to occupy the whole of this broad field, which has been more or less thoroughly run over for a quarter of a century; but to consider principally the comparative merits of two or three different plans of structures adapted to the accommodation and treatment of the insane, with regard to the economy and convenience of plan, the safety, welfare, and recovery of patients, and the comparative expense of supporting and maintaining them.

When we get beyond the simple household treatment and care of the insane, which from various motives is still adhered to by some, we must resort either to strictly private retreats of a sanitary character; or to work-houses or alms-houses which are local and limited in their purpose; or to colonies of the cottage or hamlet plan; or to such hospitals as are now usually provided for a more general accommodation of all classes of patients, rich and poor, chronic and acute.

Respecting the private isolated treatment of the insane, whether at home or in lodgings, that we think may be summarily disposed of in the earnest words of the late Dr. Conolly: "Insanity is a great leveler; but in all my professional observations, I have scarcely ever

met, in any class of society, with patients so deplorably situated, as in these detached or isolated residences for the reception of single patients whose property gave them the unhappy privilege of being secluded in them;" a conclusion which he amply justifies in a forcible paper on *Residences for the Insane*, communicated to the Association for the Promotion of Social Science. [Jour. of Mental Science, vol. iv. 411.—1859.]

In classifying patients, there has been a strong disposition to segregate and make a distinct separate provision for chronic cases: the demented and the irrecoverable, or those suspected to be so. Gheel is a Belgian hamlet devoted to the care of such cases, and the general sense of the medical profession seems to condemn it. Indeed, Gheel is unique; a warning, rather than an example. It had no historical predecessor; and has had no competitor, nor imitator for a thousand years. It has answered a purpose for chronic cases amongst a people unwilling of change even by way of improvement, and remarkable for great simplicity of manners and habits of life. It is a cemetery of the living, where from infancy to old age, generation after generation has vegetated and dozed in a hopeless and unambitious monotony, with no other gift or aspiration except to feed, lodge, and care for imbecility, idiocy, and senility. The various attempts which have been made to combine that sort of treatment with modern modes do not warrant repetitions of such experiments. We shall record presently what Dr. Tuke has to say in respect to the Scotch system, somewhat akin to it.

Poverty of circumstances seems to exclude chronic or irrecoverable cases from private retreats, which however commodious and serviceable they may prove to those who can command their comforts and luxuries, necessarily shut their lucrative gates against the indigent.

Those common resorts of needy patients, the alms-houses and work-houses, are so noted as mere receptacles of wretched and friendless penury, and for neglected or abusive discipline, that humanity shudders at the necessity of placing a fellow creature, however insensible or demented, in the care of such debased and ignominious charities. Segregation, therefore, on any such plans or modes, is getting to be reputed as unworthy of the countenance of a profession which has reasonable cause to pride itself on its sympathies with every thing humane and considerate of infirmity and helplessness.

As an escape from these, and as a relief from the crowding and overflowing both of these and of establishments of a better grade, resort has been sometimes made to a provision for hopeless and chronic cases as lodgers, singly or in small groups, in hamlets or detached abodes adjacent to asylums and hospitals; and what was at first simply a matter of necessity or mere convenience, has grown into a question of choice and preference; so that it is seriously debated whether cottages are not better than hospitals, or whether some hybridous combination of the two may not be better than either; and experiments have been made, and are making, in that direction. In this country it is an experiment against the unanimous judgment of that respectable array of experts who compose the Association of Medical Superintendents of American Institutions for the Insane, who after earnest debate resolved against separate provision for the curable and incurable, at the same time that they resolved that it is the duty of every State to make ample and suitable provision for all its insane.

There is something attractive and romantic about cottages and cottage life. We associate with them domestic love, roses, woodbine, and luxuriant ivy running

over thatched roofs; larks and nightingales; lowing cows, bleating lambs, and browsing goats; early cocks, prolific hens, fresh eggs; neat-handed Phyllises, rosy milkmaids, sighing swains; and all sorts of pastoral delights sung by poets of dubious sanity, and better adapted to love than to lunacy. The poetry is admirable, when it does not pall; but the reality is apt to be very rugged prose. An insane person, chronic or pauper, is probably more sensitive to the creature comforts of life than to all its embellishments; prefers nutritive diet, good attendance, kind care, and social sights and sounds, to all the roses and woodbines that may adorn any rude, lonely hovel that fancy exalts into a delightful cottage because of such outward show, without thinking of its scanty room, its smothering roofs, and its petty windows obscured by leaves and thronged by noisome bugs and mordacious insects. Dr. Tuke will tell us presently what the Scottish cottages are; almost as bad as our poor-houses, and a little worse than Chancery to put one's fellow-creatures into.

Such cottages and cottage life however, as Dr. Tuke describes, are not what we in this country propose to imitate. They may do for Belgian and Scotch lunatics and imbeciles in a chronic state; but a Yankee, in any state of mind, demands different treatment. Indeed, he knows no more about cottages proper,—the real rustic sort,—than he does about an Established Church. His residence has been in every thing habitable from a log cabin to the Astor House, excepting a cottage; and that he looks upon as a fanciful bit of architecture, known only in pastoral poetry and novels, and once or twice slightly mentioned in Scripture. He prefers shingles to thatch, two or three stories to one story, a forest to a paddock, a mountain to a hill, a cataract to a ripple, a big hospital to a cramped cell. He is not of Cowley's

mind to "prefer littleness in every thing," but is rather a Brobdignag and prefers bigness in every thing. He is a cenobite rather than an anchorite. What he calls cottages are not little dwellings for moderate or poor people to live in: they are the princely country residences of the rich scattered along the beaches at Newport and Long Branch, or surrounding the great hotels at Saratoga, habitable only in summer and fair weather; and however crazy he may think the people are who transiently live in them, he does not recognize their cottages as adapted to the other sort of crazy, and would hardly adopt those celebrated watering places for permanent Gheels.

In this country, moreover, we have no pauperism outside of the cities and large towns, which supply only the smaller part of the inmates of insane asylums: we have frequent cases of indigence, but no class paupers; or if we have any so distinguishable they are not indigenous, but are the scum or the sediment of effete countries, where degradation is hereditary and classified. Poverty here is not the distinctive badge of a class, but the casual distress of vice, mishap, laziness, or deserted old age. We have no castes or marked and impassable grades of social distinction,—no generations of high-born and generations of low-born, or medium generations of down-falling high and uprising low, with a mass of distinct and professional pauperism at the bottom. We are not thickly peopled enough for such wretched and shameless indigence as blots many enlightened countries. Here where a whole world lies open, and labor is the necessity of every man's life, we expect every man to achieve his own livelihood and fortune, and we give him ample room for doing it. Even the paupers from abroad of the last generation have left their descendants to be the thrifty and even the conspicuous men of this.

Our sort of pauperism does not run with the blood, or stamp and stain its posterity forever.

When we classify, therefore, we do not classify according to any foreign standard of social difference. There are unquestionable personal and individual differences which we naturally regard. We perceive readily enough that on account of sex, or years, or particular habits of life, one requires a different attention and treatment from another, but not simply on account of any particular social distinction. A farmer here is the lord of acres; abroad he is the tenant of roods, without an inch of superior lordship: there is nothing allodial about him. Both labor in the same calling; one pays rent and taxes, the other pays taxes but no rent; one expects to be governor or president, the highest hope of the other is to emigrate to America, or to escape the alms-house at home. We have a numerous rustic population, the back-bone and main-stay of the land and its institutions, as the demagogue most truly says; and although they contribute to our asylums a greater proportion of inmates than any other pursuit, calling or profession, they are not cottagers, nor are cottages their customary habitations.

If the cottage plan is a failure in countries where a cottage life proper is the usual life of the most numerous class, it is idle to expect that it should be a success in this country where no such mode of life prevails. Such detached provision for the chronic and incurable insane as is described by Dr. Tuke in the article which we subjoin, would be wholly out of the question in these latitudes; and therefore it is proposed by some that the cottages should be scattered about in the vicinity of a central hospital building and its offices; sufficiently remote for isolation, but not so distant as to be removed from the supervision of the hospital

officers. On the score of economy, which seems to be the chief pretext for such an arrangement, we think it must signally fail. So many scattered foundations, superstructures and roofs, and the repairs of them, cannot probably be provided in the plainest way for any less expense than a large building equally plain that will accommodate an equal number of patients. They will after all lack many conveniences; baths, kitchen economy, regular and systematic attendance, and provision for all the minor needs that only a large and comprehensive system can meet.

But the fatal objection, after all, is not of this character. In a sanitary view, the cottage system in any way of management, by isolating chronic cases from the rest, adds to the unhappiness of a state already sufficiently unhappy. It seemingly passes a sentence of perpetual imprisonment or banishment upon those who are consigned to these distinctive establishments, and is a signal to all who enter, and to their friends, to abandon hope, which should never be abandoned. All experience shows that whatever exceptions may be found in some cases of a particular grade requiring isolation, the mass of the inmates of hospitals enjoy the social relations, and the little excitements and pleasures that they afford; and chronic cases may be indulged in that way to their comfort if not to their cure. At least if they show themselves quietly disposed and open to domestic enjoyments, they might find a more wholesome seclusion at their homes than in a hospital exclusively devoted to incurables; and such should be the disposal of all of that class whenever they are removed from a hospital, provided they have homes to go to or friends to care for them.

Some of the main objections urged against the cottage arrangement apply with equal force to the plan

which assigns separate hospitals to the chronic and the acute cases. The separation itself is a decisive objection if it be absolutely enforced and carried out; but there is an impracticability in that. Acute cases will creep more and more into the chronic establishments, by influence, by favoritism, by local necessities and convenience, until the desirable result is forced of confounding all unnatural distinctions, and adapting such exclusive asylums to a general indiscriminate use. It is only such a confidence that makes the experiment tolerable. Its bane will be its antidote.

The best arrangement, therefore, for all the material purposes of a large asylum, so far as a good experience goes, is that of connected buildings either under one roof, or so adjacent and communicating by protected passages, as that they may all be readily accessible, at a moment's warning, by the superintendent and attendants, without exposure to the weather; and that all necessary transfers or removals of patients may be promptly made without a like exposure and without much observation. Such a plan excludes the idea of detached buildings, except perhaps, porter's lodges, tenements for gardeners and workmen, and such external conveniences as may be demanded for outside service. The compactness and order of such an arrangement, as compared with detached buildings, call them cottages or what you will, is so advantageous for economy of structure, of repairs, of supervision, of attendance, of removals, of classification, of recreation and diversion, and of household service, that such circumstances should give it, as they have done in this country, a decided preference.

The single point of attendance deserves a special consideration. The paucity of suitable assistants and servants is not apt to be sufficiently regarded by any but

those who have actually encountered the difficulty of obtaining them. As attendants or nurses they require a particular training and experience, besides some native qualities that are not the most common in the world; such as humanity, patience, cheerfulness, watchfulness, courage, firmness, self-control, a love of order and submissiveness to discipline. Without such qualifications, it is hopeless to deal with lunatics; and those who possess them can usually employ them to better self-advantage than in the irksome service of an asylum. Nature endows but few with all the special characteristics for such a vocation, and it requires somewhat unusual incentives to persuade those who are best fitted, to undergo the constraint, the self-denial and the tediousness of it. Every plan, therefore, should contemplate this difficulty in its arrangements, and be as economical as possible of such service by so adapting the arrangements as to call for the least of it,—enough, but not to spare,—of the best quality and well rewarded. Obviously it is easier to attend upon a dozen patients promptly accessible than upon half that number who are dispersed.

Attendants, moreover, require supervision, as well as patients. They must feel the constant presence and observation of those who are authorized to criticise their conduct, and they will feel it the more when under the same roof, than when they are in detached and remote quarters which they are conscious can only be visited at intervals, and probably only at set times which they may be prepared for. The cottage system has thus a disadvantage as compared with the hospital system, which allows of ready visitation and inspection at all hours and seasons, without the serious drawbacks of distance and foul weather. Distance alone is a most serious drawback, for it consumes time,

and enhances fatigue. Besides, the only patients fit for the cottage, although they require a different, require perhaps a more constant, attention and watchfulness than the inmates of the hospital proper. In case of such sudden changes of condition as demand prompt changes of treatment and grade, these cannot be effected without greater delay and much greater expense. In our inclement climate particularly, considerations like these are of great moment. The duties of supervision and attendance are fagging and onerous enough in any possible arrangements, and certainly they ought not to be aggravated by any avoidable inconvenience. In a mere economical view, moreover, the cottage plan seems to require more numerous attendants and servants for a like number of patients than the hospital. But if all things, except a stinting economy or a reluctant parsimony, combine in favor of any plan, economy alone, much less parsimony, should not be suffered to exact the sacrifice of any of them; and we cannot believe that the humane sense of the people would tolerate it.

What is called the pavilion plan is an attempt to combine in a single establishment the advantages and characteristics of both hospital and cottage, but apparently with a sacrifice of the peculiar advantages, and a certainty of the peculiar disadvantages, of both, and at a greater expense than either. The idea seems to be derived from some watering place or hotel arrangement, consisting of a great building for general use, and lesser outlying buildings for particular classes of patients.

In all our suggestions we contemplate equally good treatment and care for all classes of inmates, having proper regard to their several conditions of health, and the corresponding requirements. We suppose that the inmates, whether of the hospital or the cottage or of any combination of the two, will have the best of all

things requisite for their respective needs, comfort and restoration, so far as either plan will allow; and our position is that the hospital system in our mode of conducting it, with such improvements as time and experience will suggest, is really the most efficient as well as the most economical of all, and the best adapted of all to the circumstances of this country.

The suggestions at the close of Dr. Tuke's candid and interesting paper contemplate such cottage arrangements as he would approve, although he seems to think them of doubtful practicability even in his own country under existing circumstances. We feel confident that they are quite impracticable in this, from various considerations which we have already advanced, and others which we might suggest; but we are not disposed to deny their force, admitting their practicability, as applicable to the peculiar system under which the charities of England and Scotland are administered.

[From the *Journal of Mental Science*, for January, 1870.]

The Cottage System of Management of Lunatics as practiced in Scotland, with Suggestions for its Elaboration and Improvement. By J. B. TUKE, M. D., Edin., Medical Superintendent of the Fife and Kinross District Asylum.

(*Read at a Half-yearly Meeting of the Medico-Psychological Association, held at the Royal College of Physicians, Edinburgh, 25th November, 1869.*)

The more general adoption of the "Cottage System" for the boarding out of harmless and incurable lunatics is regarded by many as the only remedy for the increased demand for Asylum accommodation, for the reduction of expenditure, and for the prevention of the overgrowth of Asylums. In Scotland the suggestion meets with the approbation of high authority—in England it does not. I have experienced no small reluctance in coming forward now to express my opinion of the working of the system as it now exists in Scotland, and to narrate my experience of it derived from actual inspection; but conceiving it to be a fair field for discussion,

I enter upon it in the full hope that, however much my views may militate against the opinion of the advocates of the "Cottage System," they will be accepted as unbiased by aught but a desire to promote the welfare of the lunatic and the public at large.

It is needless here to enter upon comparisons between foreign institutions, such as Gheel, and the villages in Scotland in which patients are boarded on the "Cottage System," as there is no mutual stand-point of history or national characteristics; nor is animadversion called for on the failure in attempts to institute similar villages prior to the appointment of the General Board of Commissioners in Lunacy for Scotland. We must confine ourselves to the consideration of things as they at present exist.

In order to be able to form an individual opinion of the manner in which lunatics are provided for under this system I paid two visits to Kennoway, a village in Fifeshire, about a mile and a half distant from the Cameron Bridge Station on the Leven and East of Fife Railway. The first visitation was made on the 4th of July, 1869, when I was accompanied by a member of the Fife and Kinross District Lunacy Board; the second on the 16th of October, when Dr. John Smith, Vice President of the Royal College of Physicians of Edinburgh, was my companion. As you all know Dr. Smith has been closely connected with the treatment of Lunacy for the last half century, has made the management and accommodation of the insane his special study, and has been a thoughtful observer and carrier out of the improved system of treatment. It is of no small importance to be able to inform you that either he or I had been personally acquainted with all the patients resident in Kennoway, (with one exception,) when they had been inmates of Asylums. The larger number had been under Dr. Smith's care, either in the old City Bedlam or in the Lunatic Wards of the City Poorhouse of Edinburgh—the remainder had been patients of my own in the Royal Edinburgh Asylum or in the Fife and Kinross District Asylum.

The village of Kennoway is healthily situated on a rising ground overlooking the Firth of Forth, from which it is distant about two miles; in consequence of the decline of the hand-loom trade it has seen its best days; many of the houses are ruinous, and its general appearance is strongly suggestive of decay. Boarded in the houses of the villagers are from twenty-three to twenty-five lunatics, whose condition is admitted to be equal, if not superior, to that of the 1,500 similarly accommodated throughout Scotland.

The tenements in which we found the patients were of the class

inhabited by the poorest of agricultural laborers and weavers, many were evidently damp and indifferently ventilated, the floors in most instances paved with flags, and open drains stood or ran before the doors. As a rule, the æsthetic name of "Cottage" as applied to these dwellings is an utter misnomer—to certain of them the term "hovel" would be more appropriate. In one the stair bore witness to the antiquity of the dwelling, being so worn by the feet of past generations as to require the visitor to make use of a rope for safety in ascending and descending. There are two or three exceptions to this dilapidated condition, but the very best houses are faulty in construction. As to cleanliness, one half of these dwellings were, considering all the disadvantages, very fairly attended to, the other half were open to considerable animadversion. One was filthy in the extreme.

The number of patients in any one house does not exceed four—these are termed "Special Licensed Houses;" in others, one, two, or three lunatics are boarded. The rate of board paid to the guardians is six shillings per head per week for males, and five shillings for females—clothing being provided by the parish.

The patients were with one exception, either demented whose disease was of long standing or congenital idiots. One woman was reported to be subject to paroxysms of excitement. Taken as a whole, they were identically of the class which forms the mass of Asylum population.

On the occasion of my first visit I found in one of the worst managed houses a girl whose melancholic insanity was of recent origin—a case which appeared to me curable. On my second visit I was given to understand that she had left the village, having proved too troublesome for her guardians to manage, who reported to me that the patient had gone away far worse than when she came.

Within the last few weeks a young woman has been transferred to my asylum who has been weak-minded from birth. She had previous to admission, been resident in a private dwelling in the village of Star, near to Kennoway, in consequence of symptoms of hysterical insanity having developed themselves. It was found impossible to manage her on account of her erotic tendencies which at last gave rise to an outrage on public decency and which necessitated her transference to the Asylum.

I know nothing as to the authority by which these two patients had been detained in the parish of Kennoway, but they are evidences that the "Cottage System" is applied to recent and curable cases, as well as to harmless and incurable.

The general appearance of the patients as to cleanliness of person and clothes ranged between moderately clean and decidedly dirty. No means whatever exists for bathing. In no instance had a bath been administered since transmission to the village.

On the occasion of both my visits I had full opportunity of judging of the diet; as a rule it appeared to me insufficient in quality and quantity. It consisted chiefly of broth, fish, and potatoes; the vessel containing the broth was of a size not compatible with satiety; the fish and potatoes were with patriarchal simplicity conveyed to the mouth by the fingers. In one house, however, a good and sufficient meal, decently served, was laid before the patients.

The conclusion arrived at by Dr. Smith and myself after a careful consideration was, that all these patients had materially fallen off from the bodily condition in which they had been when inmates of the establishments over which we had control. Three who had been transferred from my own Asylum only a few months previously were anaemic and thin compared with what they were when they left my charge.

The amount of supervision exercised over these patients and their guardians is understood to consist of a visit twice a year from a Deputy-Commissioner in Lunacy, a quarterly visit from the parochial surgeon, and an occasional visit from the Inspectors of Poor of the parishes to which the lunatics severally belong. The Inspector of Poor of Kennoway acts as honorary Superintendent, which office entails no small amount of trouble and correspondence.

Those houses in which the patients were best cared for were kept by aged or decrepit persons who were evidently unable from these or other incapacitating circumstances to follow out any definite employment; in fact, it appeared as if they were merely able to eke out their own existence from the meagre profit derivable from the board paid for the maintenance of their charges. I gladly admit that in the best houses the manner of the guardians was such as to lead to the conclusion that they took a kindly sort of interest in their patients, but I was by no means so struck with the style of others, none of whom would I have selected as an asylum attendant.

It cannot be said that any greater degree of contentment as to their lot existed amongst those lunatics than amongst those resident in asylums. Several regretted the absence of the amusements and variety of an asylum life and complained of the dullness and monotony of their present abode. One poor woman said that she was anxious to be back in the "Forrest Road,"* an institution not

* Lunatic wards of City Poor-House, Edinburgh.

peculiarly characterized by variety, but still a very vortex of excitement compared with Kennoway. The complaints which are constantly heard in Asylums were not wanting here, and any appearance of really greater personal liberty was far from evident. As to absence of restraint and discipline as ameliorating conditions much cherished by these free air patients I am very doubtful; those who could think at all recognized the fact that they were still "kept" in Kennoway and that they were no more free than if detained under a sheriff's warrant. I may be wrong, but my impression was, that the restraint and authority exercised over them by persons of their own or even of a lower class sat heavier upon them and was accompanied by a feeling of degradation greater than would have been experienced had they been exercised by those whom they recognized as their superiors. They all had their limits assigned them—some went stated messages and errands—others were allowed to bask in the sun in the streets or "kale yard," but all were as much restrained as if within the boundary wall of an asylum estate.

If I had ever entertained any hypothetical sentiment about the "traitment à l'air libre," it was utterly dissipated by my experience of Kennoway, for I can safely say that most of these patients would have had more free air, and of a better quality, and equal if not greater liberty, in any well constructed and well regulated asylum, than they received in the position in which we found them. The day on which my first visit was made was fine and sunny, and therefore the brightest side of the picture was seen; but what is the condition of these poor people in winter or in rainy or stormy weather? Which would you consider the more monotonous under such circumstances, the work-room or the verandah of an asylum, or the dingy kitchen of a Kennoway cottage? That all of these patients were in more "homelike" circumstances than if confined in an asylum is most true: many of them were in the full possession of the homelike influences of dirt and squalor, and all of them were devoid of the unhomelike influences of personal cleanliness. But how far they were benefited by presence of the one and absence of the other is open to doubt.

In very fact we must put aside "free air," "greater liberty," and "absence of restraint," as mere sentimental props—arguments which could only be used to influence the opinion of those unversed with the peculiarities of the insane, quite impotent to convince those who have made them a study. I can honestly say that in my own asylum any one of these patients would have had greater

liberty of action, less restraint, and better and freer air, and I am sure the same would obtain in any one of the institutions with which you are connected.

From all I could learn very slight attempts were made to employ these patients, although certain of them were quite capable of appreciating the advantages of such recreations.

A few attend public worship in the parish church, but I was given to understand that their presence was not agreeable to certain of the congregation. No evidence presented itself that these lunatics met with annoyance or irritation from the juvenile public —on the contrary, from all that could be gathered, a kindly and considerate feeling exists towards them throughout the village. On subsequent enquiry I was informed that apprehensions are entertained by certain of the inhabitants of Kennoway as to the dangerous tendencies of one of these lunatics, that on the part of others a dislike exists to the constant presence of such depressing and melancholy objects, and that objections are held to male lunatics being boarded in the houses of single women, of which there are instances.

Having thus laid before you the general results of my inspections of the Kennoway patients, I am desirous of entering upon a comparison between their condition and that of lunatics resident in asylums and the lunatic wards of poor-houses. Perhaps it will be as well to take up the monetary part of the question first. The rate of board paid to the guardians is £15 12s. per annum for males and £13 for females. The expenditure for clothing (which is found by the parish,) may be stated at £2 per head. The parochial surgeon is paid half-a-guinea per head for visiting, and an additional £1 for inspector's traveling expenses, correspondence—charges for transference and extras may be fairly added, giving a total of £19 2s. 6d. for males and £16 10s. 6d. for females, and a mean over the two sexes of £17 16s. 6d. In all future comparisons this average will be adopted as against the rates of board in asylums, where the charge is the same for men and women.

According to the Eleventh Annual Report of the General Board of Lunacy the average daily rate of maintenance in royal and district asylums, in 1867, was 1s. 4d. per head, amounting to £24 6s. 8d. for the year. Several asylums have reduced their rates of board since the date of the report, but we must accept this sum as the last officially reported. The outlay for building falls upon the county, still it must be reckoned amongst the items of maintenance. It may fairly be stated to be £4 per head per annum. The rate of

maintenance in lunatic wards of poor-houses and parochial asylums is £19 15s. 5d. It will thus be seen that the charge for a lunatic under the "Cottage System" is £10 10s. 2d. less than that for the asylum patient, and £8 11s. 3d. less than that for the inmate of a parochial asylum.

The question now is, by what means is this saving obtained? It is self-evident that it is the result of inferior accommodation, inferior diet, absence of supervision, neglect of cleanliness, the non-provision of those ameliorating influences which in asylums are considered to be absolutely necessary, and the want of attention to those hygienic conditions which are universally accepted and inculcated in hospitals for the insane.

It may be argued by the friends of the "Cottage System" that pauper lunatics are frequently derived from the lowest class of the lower classes, and that therefore there is no hardship in returning them to the abodes in which they were reared when a return to sanity is beyond hope. This is only partially true—as a large proportion of pauper lunatics is derived from the most respectable class of the lower orders; they are paupers only from misfortune, and their lives previous to the occurrence of insanity have been passed among comfortable surroundings and the elevating influences of well-regulated homes. If we look over the record of any pauper asylum and examine what their previous occupations have been, we find that the majority have occupied positions in the world very far above anything approaching the pauper. Artisans, domestic servants, ploughmen, and their wives and daughters form the great mass of the entries. The *bondside* pauper is rarely represented, therefore it is not fair to regard the pauper lunatic in the same category with the ordinary pauper. Even if it were, are we to accept the habitation of the poorest of the poorer classes as a criterion for the accommodation of the harmless and hopeless lunatic? I have no hesitation in saying that in at least three of the houses which I visited at Kennoway, lunatic patients were accommodated in this manner, most of whom were not so demented as to be unable to recognise the benefits of a superior condition, and whose deterioration might be considered as certain in consequence. To say that what is good enough for a sane pauper is good enough for an insane is simply to ignore and cast overbroad the results of the philanthropic efforts of the last forty years. If the houses I speak of are sufficient and satisfactory for the accommodation of certain of the cases I found in them, the construction of the various asylums in Scotland was uncalled for and unnecessary by at least

one-half. If it is right and proper and humane to keep lunatics who can appreciate the real comforts of an asylum in such places as the worst houses in Kennoway, it would be right and proper and humane for medical superintendents to dismiss to similar quarters one-half of their patients.

As to supervision, it is just possible that, speaking as a Medical Superintendent, I may overrate the disadvantages consequent upon imperfect supervision; but it does strike the medical superintendent mind as curious that if he, an educated professional man, specially educated in a special branch of his profession, requires the manifold machinery of supervision to which by Act of Parliament he is subjected, the uneducated cottar should have consigned to his slightly supervised charge that helpless being, the chronic dement, who most requires careful consideration and protection. It argues simply this, that the machinery of Asylums is too complicated or that the supervision of the insane in private dwellings is proportionately inadequate. That personal cleanliness must be scrupulously attended to is a leading axiom in all Asylums. No means for bathing exist at Kennoway. I instance the highest authority in Scotland that it is imperatively necessary. In the Ninth Annual Report of the General Board of Lunacy will be found the following passage, which occurs when the Visiting Commissioner is commenting on the deficient water supply in the Royal Asylum, Aberdeen—"It is stated that, during the winter, each individual is bathed about once a month, and during summer more frequently, and the same water may be used by ten. This arrangement *seems altogether inadequate*; and if dictated by scarcity of water, a sufficient supply should be forthwith secured, as absolutely required for the purpose of mere cleanliness *as well as of health.*"* And in many other instances in this and other Reports similar comments are made by the Visiting Commissioners as to the deficient means for personal cleanliness in other Asylums, and in one instance the absence of paper in water-closets is animadverted on. With these opinions of the governing body before us, and with our knowledge of the customs of the insane, no one can gainsay the fact that a great desideratum in treatment is absent in Kennoway.

In Asylums the expense for diet is understated at 4s. 6d. per week. The scale laid down for the lunatic wards of Poor-houses cannot be acted up to for a less sum. The mean rate of board for males and females at Kennoway being 5s. 6d. per week, we may

* Appendix to the Ninth Annual Report of the General Board of Commissioners in Lunacy for Scotland. Page 148. The italics are my own.

allow one shilling for bedding, washing, and house rent, one shilling for profit, leaving only 3s. 6d. per week for food. This sum can hardly be considered adequate, more especially when we take into consideration that in Asylums provisions are obtained by contract and as a rule at a lower rate than is paid by the public.

Superintendents experience great difficulty in obtaining proper persons to act as attendants on the insane. Even under supervision, it takes months to train such a servant and to inculcate that consideration which is due to the weaknesses of those under his or her care. How, then, is it to be expected that the poor laborer or artisan can at once be fitted to undertake the office for which experience shows special training is absolutely necessary?

Enough has been already said as to my impressions of the system "à l'air libre," and the absence of contentment amongst the Kennoway patients. I would only direct your attention to the total want of all ameliorating and so-called humanizing influences which are recommended by the governing body as necessary in Asylums. Amusements there were none, employment was scanty, ventilation was imperfect, and cheerful surroundings were entirely absent—a vegetable existence at 5s. 6d. per week was the lot of all I saw in the village.

We, as psychologists, admit fully the propriety and necessity of the recommendations of Commissioners so frequently urged for the provision in Asylums of amusements and objects of interest, and endeavour as far as lies in our power to carry them out, occasionally experiencing no small difficulty in convincing Boards of Management that such things as pictures, musical instruments, books, periodicals, lectures and concerts are necessary for the treatment of the insane. It has been put forward to me as an argument against them that 1,500 lunatics of the same class as forms the staple of Asylum population are resident in private dwellings, where no such means of recreation and amusement exist, and it was argued that if these 1,500 people could do without them, why should public money be expended for the residents in Asylums?

From all that has been said, I do not think it can be doubted but that the saving obtained by the Cottage System is procured by means detrimental to the lunatic. It is difficult to understand how this provision for lunatics can be held to be satisfactory when it is compared with Asylum accommodation.

Statistics show that the death-rate in private dwellings is much less than in lunatic wards of Poor-houses; but this can easily be accounted for by the fact that no one can be transferred to a

"Cottage" unless certified to be in sound bodily health. It cannot be said that any lunatic is in sound bodily health, as the nervous centres are necessarily diseased and impaired to such an extent as to mask the symptoms of diseases of other organs—thus rendering constant medical supervision necessary. We have no means of ascertaining what are the causes of death amongst "free-air" patients, but we know that the subject of epilepsy, general paralysis, phthisis, or heart-disease cannot be boarded out, and, therefore, this section of the insane is not liable to death from the four main causes of death in Asylums and Poor-houses. Any deduction, accordingly, from the relative death-rates must be fallacious. The low death-rate is the strongest argument put forward in favor of the system, but it seems to me quite untenable.

Having thus freely expressed my opinion of my experience of this so-called system, it may seem strange to you that I am in favor of employing it in certain cases and under certain conditions. Demand for increased asylum accommodation is made year by year, and, unless some steps are taken, district asylums must double their size within the next thirty years. These asylums are provided for the wants of special districts and have no power to refuse admission. If we allow that 50 per cent. of admissions are discharged cured, and 25 per cent. die, there is a residuum of 25 per cent. left to swell the population, so that a yearly increase is unavoidable. Many of you may disagree with me in considering large asylums national misfortunes, unbenevolent alike to the patient, the rate-payer, and the physician. However that may be, in an improved and elaborated Cottage System there appears to me to be a means of providing for harmless and incurable lunatics without any detriment to them. What is needed is *superior supervision, increased rate of board, and a higher class of guardians*—in short, that the inmates of private dwellings should be subjected to conditions more closely allied to those of inmates of asylums. To this end I suggest that all lunatics of a district should be placed under the control of the District board, that such patients as are suited for residence in private dwellings should be located in villages as nearly adjacent to the asylum as possible, and that the medical officer or officers of the asylum should make regular visitations, as often as the board may direct, and report the result. The guardians should be approved of by either a deputy-commissioner or the medical superintendent of the district asylum, and their houses should be made liable to visitation at any hour of the day or night by the latter officer, in the same manner as lunatic asylums are liable to the visitation of the Commissioners in Lunacy.

It may be said that this is constituting the medical superintendent the district inspector. Why should it not be so? The inspection of the asylum over which he has charge is already sufficiently provided for, and I think it will be admitted that as a rule no better judge could be found of the proper treatment of lunatics in private dwellings than a man experienced in the management of lunatics in asylums.

A diet scale, the same as that laid down for the lunatics wards of poor-houses, should be made imperative for cottage patients, and rules be established for the maintenance of personal cleanliness. No houses should be licensed except such as are in good repair and inhabited by the better class of the peasantry or small artisans. These improved conditions would necessitate an increased rate of board, falling not far short of what is paid for patients in asylums; but without it it is hopeless, in my opinion, to obtain any satisfactory working of the Cottage System. Its success, economically, must not be dependent on the poverty of decrepit old men or women with whom responsibility cannot be made to lie. Suppose a case:—A guardian from some unforeseen accident incurs a petty debt; how is it to be paid except by withholding from the lunatic consigned to his or her charge as much of the aliment provided as may wipe out the score? Again, how much temptation lies in their way to conceal circumstances connected with their charge which might result in removal to an asylum, taking away with him the pittance which alone stands between the guardian and the poor-house? By making the system pay there is little doubt but that people would be found competent to undertake the duty, derived from a better class who could be held actually responsible for the well-being of the lunatics, and whom constant supervision would educate into a thorough knowledge of their business.

The class of patients suitable for the treatment is limited. Certainly young women are not eligible. Dements who, after a fair trial, have been found insusceptible of improvement by discipline and asylum treatment, and the better class of congenital idiots should be alone consigned to the cottage.

I understand that Dr. Arthur Mitchell, Deputy-Commissioner in Lunacy for Scotland, considers 10 per cent. only of the inmates of asylums are fitted for cottage treatment as it at present exists. It appears to me that a larger proportion might be so provided for were the suggestions I propose adopted.

There is yet another class of patients who might be consigned to cottages, namely, those discharged "on probation." Asylum au-

thorities are to some extent responsible for patients on trial, as their names are not taken off the books till the period of probation has expired. It appears to me that it would be only fair that such patients should remain under the cognizance of superintendents as long as they are in any way responsible for them.

I am well aware that many minor difficulties would arise in the organizing of a system such as is now proposed; but they will be small in comparison with the advantages to be derived in overcoming them. These advantages consist in:—

1st.—Keeping down the growth of asylums, of which the “inevitable addition” would not be necessary every ten years.

2nd.—A *real system* of supervision and management over lunatics in private dwellings would be established.

3rd.—The public would be guaranteed the proper care of *all* their pauper lunatics by their transference to the care of the District Board.

4th.—A large proportion of lunatics would be provided for by the Cottage System, if superintendents could assure themselves of the proper treatment of patients under such circumstances.

5th.—The system might be made available for the treatment of convalescent cases. I know of many instances within the last few months, which would have been benefited by a change from the discipline of the asylum, could I only have assured myself by personal observation of their proper treatment during their term of convalescence.

The Cottage system must sooner or latter be brought more fully into play, but it will never gain the confidence of the general public, or of those physicians who have made insanity their special study, until more stringent provisions against abuse are instituted, and greater assurances are offered that patients so provided for are looked after in a manner more nearly approaching to those confined in asylums. By its elaboration all necessity for enlargement of existing asylums would be obviated for many years to come. The machinery for carrying out the plan I have suggested already exists—and, were it adopted, it would secure a reduction of the enormous expenses to which districts are liable for the provision and maintenance of asylum accommodation.

BIBLIOGRAPHICAL.

GERMAN PSYCHOLOGY.—*Archiv fur Psychiatrie und Nervenkrankheiten*, 11 Band, 1st Heft.

This able journal, established by the late eminent and lamented Prof. Griesinger, has since his death been conducted by Dr. L. Meyer and Dr. C. Westphal, two learned and able German psychologists.

This number is most interesting and valuable in its several articles. The first is a review, by Dr. Meyer, of a paper on the care of the insane at public charge in the Kingdom of Hanover, discussing especially the project of a colony, near Munden, in Hanover. Dr. Meyer furnishes a strong and unanswerable argument against colonizing the insane, and in favor of hospital provision, of an efficient but economical character for all classes of insane persons, and urges the early treatment of acute cases, thereby obviating the necessity for providing for so many incurables that cannot be cared for at home.

The second article is on local neuralgic disturbances, by Dr. H. Nothnagel, Berlin.

This paper presents several interesting cases of local nervous affections, and possesses otherwise psychological interest.

ARTICLE III.

On *Aphasia*, from observations made at the clinic for nervous diseases at the Royal-Charity, Berlin, by Dr. Julius Sander, assistant physician at the clinic.

This is an elaborate paper, and several interesting illustrative cases are given, throwing light on this disease.

The autopsies and microscopic researches are of especial interest. *Embolii* and *Thrombosis* seem to have given rise to the disease in several of the cases reported.

ARTICLE IV.

Is by Dr. Theodore Simon, of Hamburg, on certain cases of brain disease, when the degenerative action on the surface is characterized by an appearance of dirty, or spotted glass.

ARTICLE V.

Contra-sexual desire, a symptom of a neuropathic [psychopathic] condition, by Prof. C. Westphal.

This is an elaborate and interesting paper, on the morbid sexual desire in persons of the same sex, to carry forward and satisfy those passions which in a healthy physical and mental condition, are only gratified between those of opposite sexes. Several interesting illustrative cases are given by Dr. Westphal.

ARTICLE VI.

Is part second of an able paper on general paralysis of the insane, by Dr. Th. Simon, of Hamburg. The Dr. gives 22 cases, with the minute symptomatology and *post mortem* appearances. When complete, these papers will be a valuable contribution to the pathology of this disease.

ARTICLE VII.

The pathology of the sympathetic system, according to our present knowledge of the subject, by Dr. A. Eulenburg and Dr. P. Gutman, assistants at the polyclinic of the University of Berlin.

This is a continuation of a series of papers commenced in former numbers of the journal, and this obscure branch of pathology is ably treated and illustrated by many highly-interesting cases bearing on the subject. The papers are to be continued in forthcoming numbers

of the *Archives*, and when complete will constitute an excellent *resumé* of all that is now known respecting the sympathetic system.

ARTICLE X.

Is an elaborate report on recent American psychological literature, with a table setting forth the number of institutions for the insane in the United States, their superintendents, number of patients, and the results of treatment, by Dr. M. Frankel, of Dessau.

ARTICLE XI.

Proceedings of the fifth annual meeting of the Psychiatric Congress, at the institution for the care of the insane at Reinau, canton of Zurich, Switzerland. The chief subjects under discussion at this meeting, were the non-restraint system, and hospital provision for the various classes of the insane. [1st, institutions for the care of the insane; 2d, institutions for the chronic insane, and 3d, institutions for acute cases.] On these questions the Congress appears to have entertained the views set forth by the late Prof. Griesinger, in his treatise.

The following interesting questions were given out for discussion at the next annual meeting:

1st. How often is syphilis of etiological importance, and in what forms of psychical disturbance?

2d. In how many cases was the course of the disease obviously referable to syphilis?

3d. In how many cases was the disease first detected by *post mortem* examination? In how many cases did *post mortem* examination give negative results?

4th. What symptoms aid the diagnosis of the disease during its course? What *post mortem* appearances indicate a syphilitic taint?

5th. Short histories of cases that have occurred.

ARTICLE XII.

Transactions of the Berlin Psychological Society.

The reports of the monthly meetings of this Society are highly instructive, and the present number of the *Archives* embraces the discussions at the various sittings from December, 1868, to the following July, inclusive. Dr. Westphal is president of this learned body, and Dr. W. Sander, secretary.

The transactions consist principally of reports of interesting cases, with remarks on the same by members. We here give a few abstracts:

First Sitting. Dr. Westphal spoke of the connection between rheumatism and chorea, and referred to cases of insanity the result of rheumatism which were complicated with chorea.

Dr. Mendel remarked that he had observed the favorable influence of Fowler's solution in many cases of chorea.

Dr. Sander remarked that he had treated many cases of chorea with arsenic, without any favorable results.

Dr. Westphal spoke of a number of cases in which there was morbid inclination to wear the clothing of the opposite sex, and to have no communication with those of a like sex with themselves, and remarked on the pathological character of these cases.

Dr. Bastian made some remarks on the perverted sexual inclinations of persons in uncivilized countries; and observed that not unfrequently these persons believed themselves to belong to a higher caste, or to be more holy than others.

Second Sitting. Dr. Mendel made some remarks on the temperature of the brain as compared with other parts of the body, in animals poisoned with alcohol, strychnia, morphia and chloroform. Also the comparative temperature of the brain in animals so poisoned

with the healthy standard; and also remarked on the variations in temperature in diseased conditions of the organs of the mind.

Third Sitting. Dr. Mendel brought forward a case of enlargement of the brain of a carcinomatous character, giving the history. He also showed a highly congested spinal cord of an infant dead of trismus.

Dr. Crone spoke of the case of a child belonging to a family in which insanity was prevalent, that suffered from the day of its birth with spasms, followed by sopor. The spasms returned at irregular intervals for twelve weeks. The child is now seven and a half months old, is physically well developed, but shows little intelligence. A photograph of the child was shown to members.

Fourth Sitting. The main question under discussion at this meeting was that of modified responsibility. It is not to be doubted that there are conditions not belonging to true mental disturbance, in which, nevertheless, the normal operations of the mind are circumscribed. The finer line between this and true mental derangement is not easily laid down, and there only remains for this condition a modified punishment.

The abstract question of responsibility, however, is not one to be dreaded by the physician, though all the light of his scientific attainments should be brought to the aid of the court in determining the grave question, whether, at the time of the commission of the offence, the accused was or was not under influences or circumstances which would tend to disturb the normal operations of the mind, and if so, should not the court mete out to him a milder degree of punishment than under other circumstances?

Herr Holzendorf, Baron Mundy, Herr Liman, and the president, Dr. Westphal, took part in the discussion.

Fifth Sitting. Dr. Livenstein detailed the symptoms, mental and physical, which attended an interesting case of hypertrophy of the brain under his care, and in which there was found apoplectic effusion into the posterior lobe of the brain. Opacity and thickening of the pia mater, serous effusion into the ventricles, with hypertrophy of the brain substance.

Herr Jastrowitz spoke of encephalitis in infants, and the discussion on this disease was continued by Drs. Sander, Lazarus, Croner, Mendel, Liman, and other members of the Society.

Report of the Committee on the Result of Consanguineous Marriages. By Dr. ROBERT NEWMAN, of New York. Presented to the New York State Medical Society, at its Annual Session, February, 1869.

In this report Dr. Newman tabulates the result of thirty-two marriages of consanguinity, and at the date of his writing 127 children had resulted therefrom. There were 8, 11, 12, and in one family fourteen children; making an average of four children to each marriage, and some of the couples were still productive. According to general statistics the average to each family is 3 children; thus comparing favorably.

Of the 127 children born, fourteen died under two years of age, or 11 per cent., whereas in the Metropolitan district of New York, the average mortality in 1868 was 38 per cent. Under the head of causation it appears that 5 died young; one died of cholera infantum, aged 3 months; one died feeble, aged 3 months; one of diarrhoea, before two years, old; one died scrofulous, aged 3 months; one of pneumonia, aged 6 months; one died feeble, aged 6 months; and 3 died of unknown causes.

Of 12 who deviate from the normal state 5 are scrof-

ulous, 2 are deaf mutes, 1 is epileptic, 1 simple, 1 has amaurosis, and 2 a peculiar deformity, (two children in the same family having but two phalangeal bones in the index finger.)

The two cases of amaurosis and epilepsy belong to the family of 14 children. The rest are intelligent, although some are scrofulous. Of the scrofulous children, one or both parents were either scrofulous or tuberculous in six cases. The offspring numbered 15, of whom 5 were scrofulous, (4 died young,) and 10 were healthy. In 4 cases the parents, one or both, had an arthritic diathesis. There were ten children, one died young, all the others were healthy and intelligent.

In the next group there are three cases where there was a predisposition to insanity. In the first an uncle, aunt and sister of the wife died insane; the husband was always in poor health; they have five children, all in tolerable health. In the second case the husband and the wife's mother died insane; the children are all healthy. One, a daughter of the above married a near relative, and her children are free from any disease: they are now respectively 34, 32, 30, and 26 years old. Of the fourteen remaining cases, in which the parents had good constitutions, the children are without exception all healthy, some of them possessing decided genius as writers.

Dr. Edward Jarvis, of Dorchester, Mass., in a letter to Dr. Newman, embodies concisely the facts enumerated by him; he writes as follows:

DORCHESTER, MASS., January 28th, 1868

ROBERT NEWMAN, M. D., New York:

DEAR SIR.—I have the fixed faith that the child follows the law of parentage; that he begins with the quantum and kind of vital element that belonged then to the parent; that the parent can give no other life to the progeny than that which he or she possessed at the time when the life was imparted.

That the child receives the elements of life from both parents, yet it may be in different degrees. Those of one or the other may predominate, from causes which we cannot determine. Even in the same family some of the children may most resemble the father, or some the mother.

This law of descent governs both, power and weaknesses—all the elements of the constitution, capacities, susceptibilities, tendencies, taints—these are heir-looms passing from generation to generation.

Now if these or any of them belong to both parents, they have a double probability of passing to the children.

Cousins, descendants from a common ancestry, have a common heritage—of good, of evil, of power and weakness. And if these join in marriage, their issue have a double chance of inheriting whatever qualities they may both possess.

If then both parents, although cousins, are perfect in constitution and health, and have nothing to transmit but power, then their children have a double security against constitutional imperfection, and a double warranty of inherited capacity and strength.

The converse is also true with cousins, who have imperfections and liabilities in common. If they marry, they provide a double chance of the repetition of the same weaknesses and susceptibilities in their offspring.

The double certainty of heritage of power or weakness seems in these cases to be due, not to the original fact, that the marrying parties had a common ancestor, but rather to the circumstance, that the elements of life contributed to the children were the same from both parents, and that where both were entirely healthy, the power imparted by one was not vitiated or supplanted by weakness imparted by the other; and that where both were imperfect, the taint of constitution or susceptibility of disease of brain, heart, etc., derived from one, was not neutralized or replaced by soundness in those organs inherited from the other.

In this view of the matter, the objection to consanguineous marriages lies not in the *bare fact of their relationship*, but in the fear of their having similar vitiations of constitution, and it may be necessary to prohibit all marriages of cousins in order to preserve the unity and sustain the power of the race from generation to generation. Yet as constitutional imperfection of some kind or other exists in many families, and these are frequently transmitted from parents to *all* their children, and from them to theirs, it is never safe for cousin to marry with cousin, until, after a complete

investigation, it shall be ascertained that neither party has any such weakness, and none has been in their common ancestry.

It is not enough, that the cousins, the marrying parties, are sound, nor even than both they, and their parents are sound. The hereditary constitutional elements are rather capacities and susceptibilities, than positive powers and taints—germs of strength and disease, that may be developed under good or evil influences, or they may remain dormant, and thus pass to the second, the third, or fourth, or remoter generations before they are quickened into life. Some inherit qualities, powers, disabilities from their grand-parents, or even their great-grand-parents, which were not manifest in their parents, or even the generation immediately preceding.

Some tuberculous parents, knowing their danger and that of their children, train and guard their offspring with sedulous, judicious and successful care, and the second generation, warned of their liability, live in the most cautious manner,^{*} and prevent the development of the tuberculous germ, and pass in good health to old age. Thinking the disease, that destroyed their fathers, and has not appeared in them, has, therefore, passed out of their blood, and will not pass to their issue, they fail to train and guard their children, as they were trained and guarded. So those of the third generation, inheriting the scrofulous taint from their grand-parents, suffer from the development of the germ and are consumptive. Or it may be that the second generation inherits the fear and the caution of the first, and establishes in their children a counteracting force to resist the scrofulous tendency, and provides for them a security against consumption, as their fathers had done for them, and then the germ may lie dormant through the second and third generation, when fear may be lost and caution set aside, and the next, the fourth generation, be sent forth to the world without the security that had been given to the third and the second; then consumption reappears after so long an interval.

So insanity, epilepsy and other diseases pass over one or more generations, waiting for the appropriate influence to bring them into manifest existence.

Mental and moral qualities in the same way pass over generations and reappear, when it would seem that the line of descent was broken forever.

I have in my mind a man of very large intellectual endowment and high culture, but of naturally a very irritable temper, yet of great discipline and self-control. His eldest son inherited his irrita-

bility of temper, which was manifested in some very peculiar form, but not his large talent, taste or self-control. His other children inherited his talent, temper and self-discipline. In the third generation, all the children of the eldest son (of the second generation,) except one daughter, inherited their grandfather's large mental powers and taste, but not the temper of the father or grandfather. The daughter, excepted above, inherited the moderate talent of her father, and the perfect self-discipline and intense sweetness of her mother. In the fourth generation, the eldest son of his daughter, above mentioned, inherits the large talent and taste of his great-grandfather, the irritability of his grandfather, with the very peculiar manifestation shown in his grandfather sixty years before him. Here are mental powers and taste dormant in two intervening generations and reappearing in the fourth; moral peculiarities sleeping through one generation, the very opposite in character reappearing in the third. In order then, to give to children the most perfect constitution and the greatest certainty of an unembarrassed life, men and women in their marriage connections should take measures to prevent the transmission of any defect or taint in themselves to their issue, by selecting partners from other families, whose elements of strength may neutralize their own of weakness in the production of the life of the new generation. Nor is it enough, that the marrying parties, or even their parents may appear to be free from every transmissible defect, for the germ of the disease may be, and may have been, dormant in one, two, and we know not how many generations, sleeping but not dead, and only waiting for the double morbid force of the same heir-loom, from both father and mother meeting in the children, to quicken it into manifest life.

Very respectfully yours,

EDWARD JARVIS.

Intermarriage of Kindred. The Annual Address delivered before the Eclectic Medical Society of the State of New York, January 26, 1870. By ALEXANDER MILDER, M. D., President of the Society.

In this pamphlet Dr. Milder enters into a historical sketch of the Intermarriage of Kindred, beginning with ancient practices, and cites many biblical illustrations. Thus Ezra, who conducted a colony of Israelites to Je-

rusalem, compelled all Jews who had married "strange wives" to divorce them, and send away their children, on the ground that marriage with another race was a violation of the commandment of God.

Abraham wedded Sarah, his own sister. Nahor taking his own neice, Milcah. Lot became the father of two powerful chieftains by his own daughters. Isaac married Rebekah, granddaughter of his father's brother. Esau married a cousin, and Jacob married Rachel and Leah, daughters of Laban, cousins of a still closer degree of consanguinity. Joseph, Judah, Levi and Simeon were the offspring of these alliances. Jochehed, the daughter of Levi, married Amram, her own nephew, and became the mother of offspring that were thus the issue of five or six generations of consanguineous marriages; and what were they, not idiots, not blind persons, scrofulous or deaf mutes, but instead of such, Moses, the profoundest statesman of his age; Aaron his eloquent brother, and Miriam the prophetess, whose songs evince intellect of a high order.

The Macedonian royal family of Alexandria, in Egypt, intermarried between cousins and even brothers and sisters for three hundred years, yet no physical or intellectual imbecility seems to have occurred. Cleopatra, the last sovereign of that line, was not degenerate in body or mind, but excelled in size as well as beauty of person and strength of intellect. A grandson of hers afterwards ascended the throne of Mauritania, and another of her descendants, Zenobia, achieved glory for herself as Queen of Palmyra.

The celebrated Derby family, of England, have intermarried for centuries; the late prime minister was the son of first cousins, and his son, Lord Stanley, has already taken rank among the foremost and ablest statesmen of the young nobility. The family of Queen

Victoria, herself the daughter of cousins, and married to one, are not uncomely or malformed. The blood has never been of the best, but does not appear to have suffered from deterioration.

Dr. Milder introduces the views of other writers, among them M. Voisin, who states that the dangers of consanguine marriages result from an intensification of any morbid hereditary tendencies that may exist in each parent; while, if each be perfectly healthy, the fact of consanguinity counts for nothing."

M. Voisin investigated the circumstances of forty-six families resulting from such marriages, and has prepared tables to show that neither vices of conformation, insanity, idiocy, cretinism, deaf-mutism, epilepsy, albinism nor pigmentary retinitis existed among any of these families.

Dr. J. Langdon Down, of London, selected twenty families united by the ties of consanguinity; there were 138 children, of whom 75 had average health and intellect; 28 were idiots; 11 were consumptive; 8 were still-born, and 19 died prematurely. To make his observations more complete, he selected twenty other families in which the parents were not kindred, but had idiotic children. The whole number of children was 145; of these 83 were in average health; 26 were idiots; 1 was consumptive; 11 were still-born, and 34 died prematurely. In all these families about one-fourth of the idiots were the first-born children, which seems to be a hint that mechanical injury sustained at birth had a material influence in producing the misfortune.

Dr. Bemiss presents 34 cases of the intermarriage of cousins, of which 7 were unprolific, and 27 resulted in 192 children. Of these 58 died in early life, and 134 reached the age of maturity. In 75 cases of disease

among the offspring, 38 are classed under the head of scrofula and consumption, 12 under the head of epilepsy and rheumatic disease, 2 of deafness, 4 of idiocy, and 2 of deformity.

In the marriages of consanguinity enumerated by Dr. Down, 13 of the 20 families were consumptive, 4 were classed under the head nervous, drunken, epileptic and insane.

Of the 20 who were not kindred, no statement is made of the health of the parents.

Dr. Bemiss ascribes all the manifestations of disease in the offspring to the single fact of intermarriage.

Dr. Milden states that all those who have taken the opposite view, i. e., degeneracy following marriages of consanguinity, have avoided the consideration of physical condition, and have ascribed idiocy, deaf-mutism, epilepsy and kindred disorders to the mere fact of consanguinity.

Prof. S. H. Dickson, of Philadelphia, in a lecture upon Serofulosis and Tuberculosis arrives at the conclusion that it is not an essential result of marriage of consanguinity that there should be serofulous or other degeneracy. But if there is any predisposition to disease in a family, the female will have it as well as the male; if then, under such circumstances, two cousins of similar serofulous predisposition marry, it is certain that the offspring will be more serofulous than their parents; but it is not so by the law of consanguinity. If two persons serofulously predisposed, of the most distant and diverse race, marry, the result will be just the same without the slightest consanguinity. It is due to the predisposition, and not to the blood. It is for this reason, more apt to be encountered among married relatives; but it is not essential; it is not a law. If two cousins are healthy, and see fit to marry, there is as

much reason to believe that their children would be healthy, as if they were not connected by cousinship or consanguinity at all. If their temperaments be opposite, it will be as favorable a conjunction as if they were not connected. If we could manage these things as the stock-breeder does with the lower animals, undoubtedly we could improve the human breed to a great degree.

Both Dr. Newman and Dr. Milder have prosecuted their researches with great fairness and scientific accuracy, and we trust they will continue their investigations in this department of sociology; their views confirm the ideas entertained by a number of practical men that it is the transgression of the physiological law alone which results in disease and degeneracy.

A Text Book of Practical Medicine. By FELIX VON NIEMEYER, Translated by GEORGE H. HUMPHREY, M. D., and CHARLES E. HACKLEY, M. D.: 2 vols., 8vo.; pp. 1600. New York: D. Appleton & Co; 1869, 4th edition.

Dr. Niemeyer's Treatise is so well known in this country and in Europe, that nothing we can say would add to the general reputation of the work among physicians. Nor have we space to give it that review which its merits would justify, or our appreciation of it would dictate. We must confine ourselves therefore, in a journal like this, to those special chapters on Diseases of the Nervous System, in which Dr. Niemeyer has shown the same distinguished ability to combine philosophy with practice as in all other portions of his work. Of these chapters it may truly be said that they present us with the most advanced ideas upon, and modes of treatment of the various diseases with which they deal, of any similar work on General Practice. We have, consequently, found the work of great utility in

our treatment of such diseases, and are accustomed to consult it to the exclusion of many special treatises upon the neuroses. The views entertained of these diseases by Niemeyer are found to be in such repeated accordance with our daily observations that we take pleasure in recommending the work to our brethren in the field of psychology. In relation to its typography it is needless to say aught save that Messrs. Appleton & Co. have set it in a dress of a graceful and enduring kind. All the works published by this house are unrivalled for typographic execution, and Dr. Niemeyer's is no exception to this rule.

Report of the Committee on Intemperance as a Disease. Extracted from the Transactions of the Medical Society of the State of Pennsylvania: 1869.

From this brief but interesting report we extract the following passages bearing upon the relations of intemperance to insanity:

ARE INEBRIATES INSANE?

We have now reached a point, in this discussion, of great practical moment to those who are addicted to alcoholic and opium excess. Are such persons insane? To answer this question logically and fairly, we must distinguish. The word insane, according to its etymology, means unsound, and in this indeterminate sense is often loosely used. If this broad definition be accepted, every man who exhibits disordered mental action, is insane. Under it is embraced not merely the drunkard, but all human beings. To use the word in this sense, therefore, would be manifestly unreasonable. Few persons would be willing to hazard the opinion that the celebrated Thomas De Quincy and Samuel Coleridge were insane, even through the years of intemperate indulgence during which their celebrity was chiefly gained. Men who are intemperate, either from opium or brandy, are not, in the majority of cases, men of insane intellect. Medical observation and diagnosis have, we think, distinctly proved that the diseased portion of the mind in such cases is chiefly of the will, not the intellect. They know, but

are *impotent to perform*. An able medical writer, Dr. John Reid, in speaking of nervous disorders, says: "We often act upon the ill-founded idea that such complaints are altogether dependent upon the power of the will, a notion which in paradoxical extravagance, scarcely yields to the doctrine that no one need die, if with sufficient energy he determined to live."

An intoxicated man may have hallucinations, be troublesome, and even violent, but such irregularities are analogous to symptoms of mental disturbance that are frequently witnessed in the course of acute disease—as the delirium in fever, and in the various forms of cerebral inflammation—and which passes off in a few hours or days, without the patient being considered insane.

Hallucinations and illusions may exist without insanity. They do not necessarily involve perversion of intellect or judgment. Indeed the reason may be quite clear, and competent to discover the existence and causes of those sensations, without being able to control them. Writers upon this subject speak of "insanity of the will," by which they mean a *perverted will*, that prompts to extraordinary acts which the insane person commits with full intent, and matured design, and enjoys satisfaction with the result, however distressing or dreadful it may be to others. Many inebriates *will* to abstain from excess in the use of intoxicants, and, indeed, determine to abstain totally, until the occasion presents which controls the will, but does not prevent it.

They act in opposition to it. They are captives, and, the will yields to the insatiable demand of physical unrest and depression, or moral infirmity. When it is over, they are stung with the bitterest remorse, and sink into the deepest penitence and sorrow. Such, however, are not the fruits of insanity.

On Aphasia, or Loss of Speech, and the Localization of the Faculty of Articulate Language. By FREDERICK BATEMAN, M. D. M. R. C. P., Physician to the Norfolk and Norwich Hospital. London: J. Churchill & Sons. 1870: 8vo., pp. 180.

The subject of aphasia has attained to proportions of so much importance in clinical Medicine as to entitle any treatise upon it to a warm welcome, and an impartial hearing. The profession are under great obligations, therefore, to Dr. Bateman, for the excellent manual, both historical as well as clinical, in which he has

presented this most interesting topic. Fully aware of the difficulties which ever surround any investigation whose field lies midway of mind and matter, the author has expressed himself throughout with the candor and precision of a judge weighing the evidence between two contending parties, without undertaking to confirm the views of either. One of the fundamental propositions which he lays down, is "that it is unwise to study aphasia as if it were a malady *per se*; it is clearly only a symptom, and not a pathological entity having a proper place in any nosological classification." This is a truth to which all investigations of aphasia will unhesitatingly subscribe.

But at this point we leave the solid land of knowledge to embark upon a sea of controversy and doubt. If aphasia be only a symptom, of what in particular is it a symptom? To answer this Dr. Bateman furnishes us with the recorded cases of Broca, Rousseau, Voisin and his own. Nothing more critical in clinical Medicine has ever been undertaken than this attempt to localize the lesion of which aphasia is the symptom. Broca's experience seems almost conclusive in support of his theory; to this Rousseau, cites some contradictory cases, and Voisin and Bateman each have theirs. The problem grows more perplexing in proportion as the number of observers increases. Yet like all questions involving vital phenomena absolute certainty is not to be expected, and all we can ask at this stage is an average result turning the scale of probabilities for, or against, some one theory.

We do not think any physiologist will attempt to unfold the psychical mystery of articulate speech. Even if we knew the locus in quo of language we should still be very far from explaining how ideas are translated into sounds. It is plain that this does

not depend upon intelligence alone, for while the parrot speaks, the more intelligent dog or horse does not. The fact however that cerebral circulation has much to do with facility or difficulty of speech is one step towards an analysis of the vehicles of language, though not of its sources. The attempt of Gall and his disciples to found an organic psychology proved a failure long before Hamilton gave it the *coup de grace*. No absolute conclusions can be drawn from aphasia touching the centre of speech. This, we believe, all physicians are compelled to admit. With an equalized circulation in the brain the mind has the best opportunity of expressing itself vigorously; with an interruption of that circulation we shall find diminished manifestations of mental utterance, and lastly in shock or exhaustion, we shall see the mind unable to express itself, though all the while conscious of the impediments which block its pathway to the outer world. Dr. Bateman's work gives us all that is as yet known upon this most perplexing break in that cerebral harpsichord, through which the mind produces the simplest language of infancy, and daily converse, or the immortal utterances of a Cicero and a Burke.

On the Diagnostic Value of the Corpuscular Blood-elements in the Urine of Bright's Disease. By JOSEPH G. RICHARDSON, M. D., Microscopist to the Pennsylvania Hospital, Philadelphia. Extracted from the American Journal of the Medical Sciences for January, 1870.

In this pamphlet Dr. Richardson briefly reviews Cohnheim's discovery of the process of Pyogenesis and states that he has in common with Surgeon J. J. Woodward, U. S. A., corroborated the views of that distinguished observer in every particular. After experimenting with human blood and watching the various changes

in the cell, he concludes that "the corpuscles of *human* pus are simply white blood cells which have wandered out through the vascular walls." The cells transude under certain inflammatory conditions; and Dr. Richardson's object is to trace the inflammatory action in the kidney by means of microscopical examinations of the urine, and thus determine the stage of the inflammatory process. He cites six cases which apparently substantiate his views, and says:

"Recapitulating now the conclusions above reached, it will be seen that while red and white corpuscles occurring as described in the urine, in their normal proportion point to renal hemorrhage, and the same elements when more nearly equal in number indicate an acute or subacute nephritis, the existence of white blood cells (pus, mucous or exudation corpuscles) *generally* shows a chronic or, at least, less acute inflammatory condition of the kidneys: further, that a series of comparative examinations performed with precaution at intervals of a few days, afford an important guide to the effect of treatment, and to the progress of the disease; and therefore, it may be, I think, safely asserted that due regard being paid to the general symptoms and the occurrence of albumen and tube casts in Bright's disease, we can by a careful study of the corpuscular blood elements, as seen in the urine, diagnosticate the form and stage of the renal affection with much more accuracy than it has heretofore been customary to do."

A Physician's Problems. By CHARLES ELAM, M. D., M. R. C. P.
1 vol., pp. 400. Boston: Fields, Osgood & Co., 1869.

This book, written in a style to be of interest to the general reader, contains nothing of special professional interest which cannot be found in the works of Hecker, De Boismont and other standard writers, from whom the author has taken many illustrative cases.

The questions discussed are, 1st, "what of essential nature do our parents and ancestors bequeath to us? What do we derive from them that determines our temperament and constitution, our proclivities to health or disease, to virtue or vice, to dullness, mediocrity or genius—in short, our active, intellectual, and moral nature, no less than our physical organization?"

2. "How are our armies of crime and disease recruited?"

3. "Are mental affections and tendencies contagious, like bodily diseases? If so, under what conditions?"

4. "What effect has the work of the brain upon life, health and mind?"

5. "Under what conditions are our senses reliable or unreliable witnesses?" To which is added an article on the "Disease of Socrates" and the "Amulet of Pascal."

The remaining chapters are upon Somnambulism, Revery, and Abstraction.

The work is pleasantly written, and will repay perusal.

Archives of Ophthalmology and Otology. Edited and Published simultaneously in English and German by Prof. H. KNAPP, M. D., in New York, and Prof. S. Moos, M. D., in Heidelberg. Vol. 1, No. 1. New York: William Wood & Co., Carlsruhe: Chr. Fr. Muller'sche, Hofbrichhandlung, 1869, pp. 364. Illustrated with chromo-lithographs, lithographs and wood cuts.

This volume will be a real help to the student of Ophthalmic and Aural diseases, and supply a vacancy in this department of scientific journalism long existing in this country.

The importance of these subjects renders it necessary for the general practitioner to familiarize himself with them, and to those engaged in the treatment of the insane it is no less valuable; the numbers are to be made

up wholly of original matter, the result of direct scientific investigation.

It is to be issued half-yearly in spring and autumn. The first number is finely printed and reflects credit on the publisher. We hope that it will meet with a generous reception.

Annual Address before the Medical Society of the State of New York. By Prof. JAMES P. WHITE, M. D., of Buffalo, President. February 2, 1870.

The subject of this interesting discourse is *Progress in Medicine*, a topic well calculated to appeal to professional pride, and to evoke in its discussion the best efforts of a writer. In this particular Dr. White has done full justice to himself and the subject; and has shown in a well digested review of the field of medicine the great advance it has made at this day. It is difficult as all know who have attempted it, to compress history and philosophy in a nutshell, when summoned to illuminate so large a field as that of progress in medicine, within the limits of an ordinary address. Yet Dr. White has done this in both a scientific and a graceful manner, and his effort is a most fit one to stand at the head of the Volume of Annual Transactions of our State Medical Society.

Transactions of the American Ophthalmological Society. Sixth annual meeting 1869. Also, of the American Otological Society, second annual meeting 1869.

An interesting number full of useful information concerning these important branches of general medicine.

Valedictory Address to the Graduating Class of Jefferson Medical College, at the 45th Commencement, March 12, 1870. By Prof. J. AITKEN MEIGS, M. D.: Subject—*Duties and Scope of Profession.*

Three other journals have been added to our exchange list since the last issue, namely:

The American Practitioner, a Monthly Journal of Medicine and Surgery, (formerly Western Journal of Medicine.) Edited by DAVID W. YANDELL, M. D., Professor of Clinical Surgery in the University of Louisville, and THROPHILUS PARVIN, M. D., Professor of the Medical and Surgical Diseases of Women in the University of Louisville. Published by John P. Morton & Co., Louisville, Ky.

The Baltimore Medical Journal. E. LLOYD HOWARD, M. D., T. S. LATIMER, M. D., Editors and Proprietors. Issued Monthly.

The Michigan University Medical Journal, conducted by the Faculty of the Medical Department, Ann Arbor. R. A. Beal, publisher.

These new journals apparently start under favorable auspices, and we hope they will give a fresh impetus to medical literature in their various localities, and add to the common fund of medical knowledge. We bid them welcome and wish them all possible success.

The late Alden March, M. D. A paper read at a meeting of the Elmira Academy of Medicine, on the evening of August 3d, 1869, by WILLIAM C. WEY, M. D., Elmira, N. Y.

New System of Ventilation. By HENRY A. GOUGE.

This is a popular treatise on the above subject, and is intended for use in the household. Its suggestions are eminently practical, and well calculated to shed light in a direction where too little is generally possessed.

Valedictory Address to the Graduating Class of the National Medical College, Washington, D. C., March 2, 1870. By Prof. JOHN ORDROUAUX, M. D.: Subject—*Intellectual and Moral Aspects of the Medical Profession.*

Reports on Rhubarb and Liquor Opii Compositus. By EDWARD R. SQUIBB, M. D. From Proceedings of American Pharmaceutical Association.

Relative Dangers of Anæsthesia by Chloroform and Ether. By Prof. E. ANDREWS, M. D., of the Chicago Medical College.

A valuable paper in every sense to the practitioner. The following table exhibits a summary of the author's researches :

Sulph. Ether,	1 death to 23,204 administrations.
Chloroform,	1 do. 2,723 do.
Ether and Chloroform mixed,	1 do. 5,588 do.
Bi Chloride Methyl,	1 do. 7,0000 do.
Nitrous Oxide,	No death in 75,000 do.

Fourth Annual Report of the Metropolitan Board of Health of the State of New York, for 1869.

Report of the Committee on the Relations of Alcohol to Medicine. By JOHN BELL, M. D. Extract from the Transactions of the American Medical Association.

Relaxation of the Pelvic Symphyses during Pregnancy and Parturition. By FREDERICK G. SNELLING, M. D.

S U M M A R Y.

LEGISLATION FOR HABITUAL DRUNKARDS.—No one, for a moment, would question the position taken up by Mr. Dalrymple that drunkenness is, of all bad habits that can be contracted, the most degrading and the most refractory. Medical readers do not require to be told that it is the prolific mother of poverty, vice, and disease, and that the habitual drunkard, of all classes of evil-doers, is the least likely, and perhaps the least able, to reform himself. Viewing the case philosophically, then, we cannot be surprised that Mr. Dalrymple, in concert with a good many more persons who have thought more or less deeply upon the subject, is of opinion that some measures should be taken to rescue the person and family of the drunkard from the ruin which he is bringing on both. Regarding habitual drunkenness not only as a bad habit and a vice, but as a disease, the tendency to which is, like insanity, transmissible to offspring, he thinks that the legislature should interfere directly in order to mitigate the sum of human misery thus caused; and, in his speech on Friday last, referred to the experience of establish-

ments in America, indicating a success in restoration of drunkards amounting to from 30 to 50 per cent. His proposition was that reformatories should be set up, which, he believes, might be made self-supporting, to which individuals conscious of their want of self-restraint might go of their own accord, or to which they might be sent by their friends, and detained until a medical certificate is obtainable that they have re-acquired the power of self-control. He proposed, further, that magistrates should have power to commit habitual drunks to such an institution, and that the property of these persons should be placed for protection in the hands of trustees appointed by proper authority.

We admit that, with the large majority of habitual drunkards, the only direct method of reclaiming them effectually is one in which their own will may be forcibly made subject to that of another, and that the plan of retreat promises better than any other that has been yet proposed. There are persons who, no doubt, are so impressed in their sober moments with the sense of their degradation, that they would gladly welcome the assistance which such restraint would afford them, and for such arrangements might be made with good prospects of success in an institution founded and maintained by private effort. But when it is suggested to detain such persons against their will for the benefit of their families, which they are bringing to disgrace or beggary, and to protect society from mischiefs which are by no means certain to accrue, it becomes a question whether such interference on the part of the State would not bring with it greater evils than those which it is intended to obviate. The disease of the habitual drunkard, if a disease at all, must be one allied to insanity; it must be a perversion of the moral sense or an incapacity to give effect to the resolutions which it inspires when temptation is present to the mind. But it is not easy to see how this condition, except when conjoined with other evidences of insanity, differs from the perversion of moral sense which renders a man insensible to the moral wrong of habitual lying or promiscuous fornication, and to legislate for such a person would be to introduce a principle which is new to British jurisprudence. The State, as Mr. Bruce pointed out, only interferes to restrain lunatics when they are violent and dangerous; otherwise it lays restrictions upon their detention, surrounding that which is effected for their good by friends with every available safeguard, and showing the utmost jealousy of any meddling with individual freedom. It only steps in for direct action when a low morality issues in the commission of crime. Were it to adopt any other course, were it to attempt to anticipate social evils by the re-

straint of the personal freedom of those from whom they are likely to originate, there is no seeing the limits of the interference it would be called upon to exert. At the same time we confess that there are circumstances in which the State might interfere both with advantage and propriety, such as where a man is frequently brought before the magistrates for disorderly conduct as the result of inebriation. To punish such a man with a fine of fine shillings on such occasions is not only a mockery of justice, but produces no good effect either for the reformation of the offender or as an example to others. The reply of the Home Secretary that Mr. Dalrymple would learn the difficulties of the course to which he wished to pledge Parliament, if he would try and construct a bill in the sense of his motion, clinches the arguments against it. We agree with him that at present indirect means of operating against intemperance are those which are most full of promise. "The cure for drunkenness," he said, "must be the moral one; the perception, which was fortunately spreading throughout all classes, that the vice was disgraceful. During the course of the session the Government proposed to bring forward two measures which would, he trusted, have a marked effect in checking the abuse of intoxicating liquors. By one they hoped to place mechanical difficulties in the way of procuring intoxicating drinks; but he trusted that far greater effects would result from the measures introduced by the Vice-President of the Privy Council which would spread throughout the country sounder opinions and sounder knowledge, and which would therefore be the means of checking the mischiefs arising from drunkenness." We should have been glad to hear also that an attempt was about to be made to facilitate further the destruction of the dens in which the poor live in our great cities, and the erection of wholesome dwellings in their place, as well as for the *domestic* education of the girls who are in the future to become, for good or for evil, the wives of the laboring classes. Many and many a man becomes an irreclaimable drunkard by being driven from a miserable home, where his surroundings are all of a depressing tendency, to find solace in the glare and companionship of the neighboring gin palace.—*Med. Times and Gaz. for March.*

The proceedings of the annual meeting of the Association of Medical Superintendents, which was duly held in Hartford last month, have not been fully prepared for publication. They will appear in our next number.